A   Consumer-Centric Study of Factor Presence and Polarity in Bitcoin's

Innofusion

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Thesis submitted to the Department of Management and Marketing of the Stockholm School of Economics for the degree of Master of Science.

Stockholm, May 2018

ABSTRACT

This paper identifies the existence of and studies the polarity of innofusion factors leveraged today in the discourse on Bitcoin as a cryptocurrency. Since its inception in 2008, Bitcoin (BTC), created and led by infamous entity Satoshi Nakamoto, aspires to be employed as a vehicle of routine economic activity, yet potential users' opinions are largely unexplored. To identify what factors employed today act as motivation and obstacle to Bitcoin becoming a mainstream currency, we utilize corpus of literature on innofusion to identify potential factors, rely on secondary research to assert their existence and employ qualitative interviews to study their polarity. Our findings clash with contemporaneous belief that anonymity and decentralization drive Bitcoin's innofusion, and instead, points to new groups of factors for Bitcoin to leverage in its favor. Through its findings, this paper aims to (i) contribute to the young, but growing body of literature on innofusion by testing what factors from its preceding school of thought-diffusion of innovation, still apply, and (ii) add to Nakamoto Institute's understanding of consumer landscape, provide development suggestions for not only Bitcoin's, but by extension Blockchain's, innofusion strategies.

KEYWORDS: Bitcoin, Innofusion, Blockchain, End-User, Innovation

ACKNOWLEDGEMENTS

I. Introduction

1.   Background

Satoshi Nakamoto - an unknown entity, first released Bitcoin in 2009 as a cryptocurrency built on a cyber ledger, and when in 2010 a Bitcoin owner decided to exchange it for fiat currency, the cryptocurrency was first assigned monetary value. By 2018, the cryptocurrency has experienced several spikes in price. Unlike fiat currencies, Bitcoin solves a few problems inherent in functioning of economies. Upon execution of each transaction in Bitcoin, the ledger engages in proces called 'mining' a node of participating computers, conveniently called the Peer Network, to publicly atest to a transaction's good-faith and indefinitely records the outcome as an ode to participants' reputations. In so doing, Bitcoin eradicates trust problems in economic exercies, eg. moral hazard, principal agent problem, feduciary duties, etc. (Nakamoto, 2008; Amous, 2018; Chiu and Koeppl, 2017). Moreover, Bitcoin is limited in its supply, ensuring no inflationary pressures and needs to cyclically adjust fiscal and monetary policies, consequently making the cryptocurrency not only a good store of value, but building secure and available lines of credit (Amous, 2018; Chiu and Koeppl, 2017; Wallace, 2011). This Bitcoin's unique design offers unparalleled monetary power to the final end-user - a regular consumer; making currency a product people can chose from based on which satisfies their financial needs best (eg. if they prefer a currency widely accepted, or secure and available lines of credit), rather than a government-imposed exchange tool. Henceforth, the terms end-user, customer and consumer shall be used interchangeably.

Unlike what the founders envisioned, Bitcoin has become most lucrative for criminals (Bohme, 2015; Wallace, 2011). Not only has it become the preferred method of exchange in ransom and black markets, but multiple scams and thefts about Bitcoin left early investors robbed of their money. In January 2014, world's largest Bitcoin exchange Mt. Gox suddenly went offline, taking with it access codes to 850,000 Bitcoins. At the time, the missing coins were valued at $450 million, and by mid-2017 would reach $4.4 billion. Rightful owners never regained coin access, and authorities are still trying to understand what happened (Bohme, 2015). Several more cases of fraud and theft followed worldwide, creating a negative public image of Bitcoin and equating the currency with illegal activities - quite distant from Nakamoto's original vision.

2.   Problematization

In recent years, the more Bitcoin's price increased, the more it attracted investors in search of quick financial gains. By 2018, investors view Bitcoin more as a commodity to invest in, rather than a currency to use in economic activity. Bitcoin is not used or perceived as the revolutionary currency it was designed for. Moreover, multiple other cryptocurrencies are emerging, threatening to take Bitcoin's leading place in cryptocurrencies - including Etherum; that also aim to leverage Nakamoto's vision, but better position themselves on the market. Moreover, wooed by cryptocurrencies potential, large corporations and affluent individuals are backing launches of their own coins through Initiat Coin Offerings (ICOs).

Today, Bitcoin is more a product of how social factors have shaped it, rather than a product of what its technological capabilities have destined it to be. Bitcoin finds itself in a 'Catch-22', where to survive as a crytocurrency, it needs to entirely abandon the track it finds itself on - primarily the fradulent tendencies and image of financial commodity - and focus exploring how to attract consumers to adopt it according to its intended use – as a fully fledged currency. As it attempts to do so, the time is running out with many alternatives arising.

3.   Research Focus and Research Question

This paper is an empirical, exploratory study of the current existence and polarity of factors employed in Bitcoin's innofusion strategy, exhibited within potential end-users phenomenological contexts. This paper seeks to ascertain whether the manner in which the factor is conferred today on non-Bitcoin users has a positive or negative hold with end-users, and does not concern itself with the contemporaneous employer of the factor. As their niche target groups, the researchers choose to study business university students and recent graduates in the United States and Sweden, for, as guided by the corpus of literature, young, highly educated echelons of western societies are famously known to exhibit personality traits welcoming to innovation, harbor highest percentages of early adopters of technological innovations, and act as innovation's vehicle into routine economic exercises (PEW, 2016; Ipsos, 2008). Similarly, the United States and Sweden nurture some of the most eligible environments for innovation (Cornell et al., 2016). As such, the selected setting of this study provides the most relatable milieu to Bitcoin's current objective to break the chasm from early innovators to early adopters (Johnson, 2018).

Researchers utilize sociotechnological constituency approach in their review of existing body of literature, equitably analyzing uptake factors stemming from (i) technological design trends, with a particular focus in design trends within consumer finance, (ii) social system studies, and (iii) individual studies (Molina, 1995). The extrapolated academic factors are subjected to an empirical examination, defining which of the academy suggested innofusion's factors are leveraged and which have not yet been utilized on Bitcoin's diffusion journey, to construct a Theoretical Framework. Scientific method employs qualitative interviews in testing aforementioned hypotheses, for not only it alleviates sensitivity concerns, but potential consumer knowledge bias as well.

4.   Motivation for the Study

Researchers root motivation to study the cryptocurrency Bitcoin (henceforth interchangeably referenced as BTC) in its concept's promise to coalesce epochal changes in consumer finance and financial economics, by (i) eradicating principal agent problem via its anonymous yet secure node network, (ii) designing a self-regulating currency via absolute scarcity of coin supply, and, as consequence of (i) and (ii), (iii) divorcing monetary policy from national government and creating a de facto unitary global financial market (Amous, 2018; Chiu and Koeppl, 2017). In so doing, this paper endorses overwhelming academic

attest of Bitcoin's viability in fulfilling currency's main functions- store of value, unit of account, and mode of exchange (Nakamoto Institute, 2015). However, this paper also endorses the view that whether Bitcoin will function as a currency depends on whether it can influence consumer's voluntary intention to adopt it as currency (Robbins, 2017). Hence, understanding what factors act as positive drivers and negative deterrents can help Bitcoin boost its progress into hands of consumers, as a first step toward making aforementioned macroeconomic changes.

5. Contribution

a. Literature Contribution

By identifying the set of existing factors, findings aspire to contribute to the young, but growing body of literature on factors deciding the success and rate of innofusion. As will be deconstructed for the reader in the upcoming chapters, innofusion inherently differs from institutionalised and promulgated diffusion of innovation in the nature of the product diffused. Innofusion's are diffusion journeys of products that cause drastic socio-economic shifts- such as Bitcoin (Robertson et al., 1996). Little research exists on the factors directly determining the success and rate of innofusion. All innofusion research thus far, including this one, leverages factors from tools and models designed for diffusion of innovation. By testing a large group of known factors against the success of innofusion, this research will act as a liaison between old and new body of literature, determining which of the old factors are fit to the disruptive products.

b. Managerial Contribution

By studying factor polarity (positive or negative), the study aspires to contribute to Bitcoin's management understanding of innofusion's potential drivers and drawbacks, as well as equip them with strategic understanding of what factors to promulgate, what factors to ameliorate and what factors to introduce to expedite user adoption. Even though the birther of Bitcoin, Satoshi Nakamoto refuses to unveil their identities, Nakamoto Institute's publications leave no doubt that Bitcoin's main goal is to function as a currency of mainstream, regular economic activity. The competition landscape is not only changing in so far that established governing bodies- both political and financial, are building barriers to entry into main financial exchanges, but for undeniable promise of its conceptual design, more coins are developed by both aforementioned governing bodies, as well as companies and other undisclosed entities (DeVoe, 2017; Barnett, 2017). Bitcoin's competition is exponentially growing, accentuating the need to understand aspects of it that encourage and deter consumers to uptake it.

Moreover, this paper's findings expand on theoretical contribution for identifying consumer's motivations and fears of using Blockchain technology. As it stands, Bitcoin is but a use of Blockchain software, and benefits and hindrances of Bitcoin's technological design are by extension applicable to Blockchain software and provide valuable consumer voice in guiding future technological developments (Kaan

Avdzha, 2017). Management teams of multinational enterprises spanning several industries are in the process of embroidering blockchain technology into their corporations technological infrastructure, and their investments will experience quicker normalization and acceptance should they have an identified set of motivating factors and obstacles end-users exhibit (Hackett, 2017; Woodside et al., 2017).

6.   Paper Outline

For reader's convenience, this paper is split into eight chapters: (i) Literature Review, (ii) Review of Target Group's Exposure, (iii) Hypotheses, (iv) Methodology, (v) Findings, (vi) Discussion and Critical Reflections, and (vii) Conclusion.

II. Literature Review

1.   Introduction to the Literature Review

Examining the determinants of individual's innovation uptake decision has been of interest to academics for the better part of last fifty years. Laying ground for years of research to come, Rogers' Diffusion of Innovation (1965) blends schools of psychology, sociology, and anthropology, to institutionalize key factors that would arbitrate individual's judgement of an innovation - Relative Advantage, Ease of Use, Visibility, Compatibility, Results Demonstrability, and Voluntariness of Use. In light of societal progress both culturally and technologically, researchers today are eager to refine aforementioned factors to build a novel set of constructs that would candidly portray the fast-paced, technology-driven environment and seek to better understand determinants of individual behavior toward novel solutions. Nowhere is this as urgent as with innofusions- diffusions of novel concepts so dynamic, that they will have radical disruptions to established norms, skills, experiences, institutional arrangements, expectations and common conventions (Baskerville et al., 1998; Oudshoorn et al., 2003; Abernathy et al. 1985; Kemal, 2009). As an extension of innofusion are emerging cryptocurrencies- including Bitcoin, that challenge the meaning of consumer democratization and economic governance. For the remainder of this paper, we will use the term 'innofusion' instead of only 'diffusion' or 'innovation', because in the light of lacking research on factors on innofusion, we equate the bodies of existing literature. While Rogers' model continues to act as a strong foundation to the factors determining innofusion based on the technical design of innovation itself, new schools of thought have coalesced two additional streams of factors determining innofusion- factors stemming from individual entities, and factors stemming from social systems (Molina, 1990, 1993).

This research hence utilizes the sociotechnical constituency approach in determining the scope of factors, for belief that in such radically novel concepts social constituents (customers and their values, communities, advocacy groups, etc.) and technical constituents (computers, Internet, telecommunications, etc.) are inseparable, dynamic and mutually dependent in the process of creation,

adoption, and diffusion of particular technologies (Kemal, 2009; Molina, 1990, 1993). This chapter aims to deconstruct the progress of innovation theories and introduce most prominent uptake factors from literature, conveniently split between factors apropos innovation design, factors apropos social systems and factors apropos individual adopters, that together comprise the sociotechnical approach. Secondly, it contrasts literature findings against Bitcoin's current innofusion journey to single out a group of factors present today in end-users' phenomenological contexts. It is important to note, that we adopt a consumer-centric view- we search only for factors that are present in consumer's daily lives and experiences. We hence do not study the factors. Bitcoin owners directly employ, because (i) consumers might perceive and identify certain factors differently from how Bitcoin owner's would have intended them to, (ii) there are other sources of factors that reach and influence the consumer beyond the control of Bitcoin owners, and (iii) not all factors employed by Bitcoin owners may reach end-users and consumers inherently build their opinion based only on the factors present in their direct phenomenological context, disregarding existing factors distant from their contexts (Rogers, 1965). Finally, the chapter concludes with hypotheses on identified factors' polarity.

a. Factors pertinent to Technological Design

Meta-reviews have identified several factors pertinent to the innovation itself that arbitrate consumer's receptability, and are largely based on Roger's Innovation Diffusion Theory. As Rogers articulates, different aspects of the infrastructural design of innovation interact to form a holistic judgement in individual users. Should this objective judgement of innovation's performance be positive, potential adopters will eventually adopt it anyway, regardless of how steep the learning curve is for the innovation in question- yet again accentuating the sheer importance of user's judgement (Rogers, 1965). Considering Bitcoin is a technological invention- operated fully by a Blockchain software, we proceed to candidly examine academic models that complement and refine the iconic Innovation Diffusion Theory with technological nuances that better address diffusion and uptake of technological innovation. We commence with a presentation of the main uptake factors and how academics refined them to best portray current uptake trends.

Performance Expectancy is the most important technological factor influencing innofusion. The factor was coined in Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, 2003), and is the successor of multiple factors that developed through earlier models, starting with Roger's Innovation Diffusion Theory and factors of relative advantage, visibility, and results demonstrability. Many academics refined Roger's iconic theory to better address technological innofusions, and fashioned new factors, including perceived usefulness, extrinsic motivation, task-technology fit, outcome expectations, and reliability (Parasuraman, Zeithaml, Berry 1988). Because most of the models these factors belonged to suffered poor explanatory power of adoption of novel technological innovations- that are not mere

marginal improvements, academics quickly refined models and shaped new factors. Over the course of several versions of Technology Acceptance Models (TAMs) by Davis, fitness of innovation culminated into Perceived Usefulness -potential user's subjective opinion if the use of a certain new solution would provide a better solution to the existing one. However, Perceived Usefulness failed to encompass a multitude of exogenous variables that mediate the gap between user's judgement and technological fit- mostly lacking are the social nuances. TAM 2 extended Perceived Usefulness to include user's cognitive comprehension of the match between important goals at work and consequences of performing the task using the novel system, but to no statistical avail. TAM did conceptualise another factor- perceived benefits of technology (Davis, 1989; Lee, Lee and Schuman, 2002), which today is also a logical part of Performance Expectancy. Finally, UTAUT proposes Performance Expectancy, which blends the objective technological fitness of innovation and social perception of it (Venkatesh, 2003).

Effort Expectancy is another summation factor the literature review point us to. Similarly, the UTAUT coined the factor as a blend of similar factors distributed in different technology adoption models- perceived ease of use and complexity, triability, visibility and voluntariness of use (Rogers, 1965, 1995; Venkatesh, 2003). Moreover, Shaw brings to light the importance of divisibility- degree to which an innovation may be tried on a limited basis by being broken into small-scale trials, which is also conditioned by reasonable pricing. Effort expectancy is an extension of Davis' Perceived Ease of Use, firstly developed for the TAM (Davis, 1986). As became apparent, the flawed TAM models pointed to the incomplete regard of exogenous factors, TAM 3 elaborated factors that construct Perceived Ease of Use, to include individual differences, system characteristics, social influence, and facilitating conditions. Even though TAM 3- unlike its precedents, explains the intention to adopt well in voluntary contexts, all three models suffer from low explanatory power (R2). We opt to endorse UTAUT's factor proposal for UTAUT has been proven as the most powerful model in explaining innovation's diffusion, in gratitude to its parsimonious structure and higher explanatory power (adjusted R2 of 70%) and points to most relevant factors determining user's attitudes (Bagozzi, 2007).

b.   Factors pertinent to Consumer Finance

We now turn our research to explore whether technological innofusions in the field of consumer finance impose any specific innofusion requirements and complement our existing toolbox of factors to reflect any finance specificities. Firstly, for reader's convenience, we would like to define what we mean by consumer finance. Consumer finance is the study of how institutions provide goods and services to satisfy the financial functions of households, how consumers make financial decisions, and how government action affects the provision of financial services (Frame and White, 2001). Financial decisions consumers make (what financial products) has a significant impact on the economy, as exhibited by cataclysmic shifts in the financial world over consumer's choice of products - eg. currencies, mortgages,

leverage, etc. This alone is a testament that consumer finances cannot and should not be ignored. As Tufano brings to light, financial economics today only study areas of general financial markets, financial institutions and services, and corporate finance and governance, ignoring consumer finance in its entirety (Tufano, 2009). Therefore, the study of innofusion within consumer finance, including what factors determine its extent, is non-existent.

Tufano (2009) provides a functional definition of four key functions a consumer innofusion ought to satisfy- payments, risk management, moving funds from today to tomorrow (saving/ investing) and from tomorrow to today (borrowing). Previous research has shown that the adoption rates vary by country, and is conditioned by potential for risk mitigation, especially with respect to regulatory requirements (Young, 2016). As the most important and common risks, the literature points to Market Risk, Shallow Market Problem, Counterparty Risk, Transaction Risk, Operational Risk (including Denial of Service Risk), Privacy Risk, Security Risk, Durability Risk and Legal and Regulatory Risks. Finally, Interface Design and Security are another two factors that spur from related literature (Lai, 2016; Swaminathan, Lepkowska-White, Rao 1999).

c.   Factors pertinent to Bitcoin

We would like to inform the reader that once we curbed our research to the review of factors pertinent to end user adoption of Bitcoin exclusively, we encountered but a handful of relevant studies. The most germane to this paper's research is a study by Presthus and O'Malley (2017) - a rare example focused on non-users, that studied motivations and barriers of end-users of adopting Bitcoin. The pair did not propose or test any new factors- as has no other aforementioned paper, and has found individual factors to be most important- especially self-confidence. However, majority of respondents cited they were 'waits for everybody' to use it first, and because of its survey design, researchers were not able to probe participating constituents for more detailed explanations. Other papers concern their studies with Bitcoin's promulgation within either specific countries, or companies. Their reviews were not presented to the reader, for their lack of end-user focus was too distant from the scope of this paper.

d.   Factors pertinent to Social Systems

Social systems harbor additional factors whose polarity differ (Rogers, 1965). Firstly, to acquaint the reader with what the boundaries and notions of the social system are, we provide a brief taxonomy of the corpus of literature defining it. Rogers (1965) institutionalizes social systems as vehicles for innofusion's promulgation by the design of its communication channels. Individual opinion of innovation is a combination of external influences and internal influences (covered in personal factors) (Rogers, 1965), that occur through communication, when potential end-users create and share information with one another in order to reach a collective understanding (Rogers, 2003).

Therefore, it is through the channels of communication the innovations spreads across people. For innofusion's owners, it is crucial to understand what factors facilitate the transfer of knowledge and responsibility at the transitions, and three matters of significance emerge (Rogers, 1965) - firstly, what constitutes the kind of information to be transmitted; secondly, what structures facilitate communication and learning best, and thirdly, the need to be able to receive and use what is transmitted. The reader should now understand the meaning of social context, its particles and its inherent difference from individual factors, and we now turn to examine these constructs.

First factor rests on the kind of information to be transmitted. This factor is positive should the information focus on the traits of the innovation itself, including motivation (described as tension for change), compatibility (as in innovation-system fit), and observability (meaning assessment of implications) (Rogers, 1965). Moreover, clearness of said communication is an important factor. In the age where content is King, fashioning the factor of right information and understanding what information to disseminate can be decisive factor in winning hearts and minds of target audience.

Second factor rests of engaging both peer-to-peer networks (word of mouth, friends and family) and wide-audience announcements (media announcements, opinion leaders) (Rogers 1965, Katz and Lazarsfelt 1955, Shaw 1965). Innofusion will occur should these two communication channels endorse a positive attitude on the known traits of innovation. Rogers hypothesizes that in interpersonal channels, the communication may have a characteristic of homophily, that is, "the degree to which two or more individuals who interact are similar in certain attributes, such as beliefs, education, socioeconomic status, and the like," but the diffusion of innovations requires at least some degree of heterophily, which is "the degree to which two or more individuals who interact are different in certain attributes." Therefore, academic community has adopted the view that a mix of both channels is needed, but little has been concluded as to what channel exercises greater power over consumer opinions.

Still adhering to Roger's (1965) writings, the third factor of successful social employment is echoing information that can be received and used by the receiver. This implies the notion that even if questions one and two are rightfully addressed, potential users still need to be the end goals of those communication channels. Thus a factor emerges that attests to the usefulness of provided information to end-users, and de facto making their life easier.

Before we proceed to study the individual factors determining success of innofusion, we would like to address a counterargument that in voluntary contexts, social and individual influence, as a group of factors or in singularity of its extensions, is not a significant factor influencing user intention (Venkatesh, 2003). This can be further extrapolated as a contra argument to the sociotechnical constituency approach (Molina, 2003). First, academic community was quick to scrutinize the argument, because the sharing aspect of peer-to-peer networks calls for only voluntary participation, and by peer-to-peer design makes these technologies fundamentally social in nature (Song and Walden, 2007). As such social benefits should be considered as an additional antecedent of the adoption of decentralized systems. This calls for an extension of the common definition of social benefits beyond altruistic enjoyment and pleasure of helping others (Hawlitschek et al., 2016; Song and Walden, 2007). Second, we would like to inform the reader that all of technology acceptance models that ignore the social factor- including TAM 1, TAM 2, TAM 3, Task-Technology Fit, are statistically insignificant and suffer poor explanatory power. As Lee and Jun (2007) elaborate, for TAM to determine behavioral intention, it should be able to analyze factors affecting adoption intentions beyond perceptions of convenience and usefulness. The only model that is statistically significant in voluntary contexts is UTAUT, with superior exploratory power (R=70), who employs social factors as one of potential meditators on user's intention (Venkatesh, 2003). Even with that, UTAUT has still been criticized for limited account of the effects new relationships and constantly-emerging societal options have.

e. Factors pertinent to Individual Adopters

It is a recognized research problem that past studies of the causal relationship between characteristics of individual adopters and success of innofusion have, despite their undeniable importance, yielded inconsistent results. The most acclaimed approach has been pioneered by a school of academics that articulate motivation as one of main drivers of human intention. Motivational aspect is particularly important in voluntary adoptions (Zaltman and Wallendorf, 1983; Yeracaris, 1961). Ferlie et al. (1996) further validate the importance of motivation in user's uptake decisions, by arguing that motivation encourages innofusion for users and makes them more likely to make adjustments needed to adopt it. In their Self-Determination Theory, Ryan and Deci (1985) distinguish between two types of motivation-intrinsic motivation, an encouragement to engage in an activity for it is perceived inherently interesting and enjoyable, and extrinsic motivation, an encouragement to engage in an activity for it is socially

desirable and leads to a separable outcome. Teo, Lim and Lai (1998) and Igbaria, Livari and Maragahh (1996) find that perceived enjoyment is another important sub-factor in motivation to engage with innofusion via the internet or via the computers.

Moore and Benbasat (1991) most prominently pioneer the academic community into invoking image as another independent factor influencing innofusion, and articulate that, if a consumer desires to maintain or enhance self-prestige and believes that the innovation will be instrumental in doing so, then his resistance to the innovation will be low. Rice (1963) and Czepiel (1972) bid user's mere belief that new innovation would require of them to seek information from others or receive other's help in either understanding or operating the innovation, will be an admission of inferiority and would deter potential users. Even though Rogers initially included Image as a part of Relative Advantage, recent research (Tornatzky and Klein, 1982) found the effect of Image (social approach) to be different enough from Relative Advantage to be considered a separate factor (Holloway, 1977).

Another group of academics identified the existence of dogmatism in individuals as an important factor determining the degree of innofusion (Blake, Perloff and Heslin, 1970; Perloff, 1968). Moreover, they concluded that when it comes to new- but not novel products, dogmatism is a significant factor in users' decisions, but when it comes to novel concepts, influence of dogmatism is inconclusive (Blake, Perloff and Heslin, 1970). The existence of dogmatism will make potential users more uncomfortable, anxious and threatened by the prospect of change and make them more resistant to innovations (Rokeach, 1973). However, extent and existence of dogmatism in users can be meditated to a large degree by authoritative communication about the innovation, and can set dogmatisms' polarity (Plant, 1960). Because the influence of authoritative communications differs between individuals, dogmatism is exhibited on an individual level and is treated as a factor independent of Social Context (Perloff, 1968; Plant, 1960).

Similarly, another factor that emerges is individual distance from opinion leaders (Rogers, 1965; Katz & Lazarsfeld, 1955; Shaw, 1965; Kemal, 2009). Opinion leaders are commonly prominent social figures exercising innovation voluntary (Rogers, 1965). Opinion leaders provide crucial observability of results, and a close distance to opinion leaders would- should opinion leader communicate positive experiences, lead to a faster adoption rate (Rogers, 2003). Identifying the opinion leaders, understanding their experience with the innovation can hence have an undeniable impact on innofusion's promulgation, and can point to whether innofusion's owners ought to proactively reach out to and from networks of opinion leaders.

Perhaps most controversially, another individual factor emerges from the discourse on theories of understanding user behavior- Perceived Behavioral Control. Perceived Behavioral Control was first hinted at in Fishbein and Ajzen's Theory of Reasoned Action (TRA) (1967), that argues individual's attitude

toward proposed behavior and the subjective norm mediates behavioral intentions, and consequently determines the success of innofusion. The theory holds for voluntary actions, but it is severely limited by its ignorance of social processes of change and the social nature of the change itself- where people collectively appropriate and construct new meanings and practice- which is especially true in technological cases. To compensate, Ajzen conceptualized Theory of Planned Behavior (1985) as an extension of both TRA and Bandura's Social Cognitive Theory (1977). Perceived behavioral control emerged here as most important complementing factor, and was constructed on the notion of self-efficacy factor. It represents self-belief that one can successfully execute the behavior required to produce an outcome. This includes understanding and performing the action itself, a precondition to innofusion.

Lastly, academics have also fashioned some individual traits that determine whether users are welcoming to innovation regardless of the solution in question, and by extension, state of those factors would determine the success of innofusion, including technological curiosity, personal importance of being an early adopter, preference to be an information-gatherer, and previous positive experience with innovation (Brandner & Kearl, 1964). Users that exhibit technological curiosity, self-confidence and propensity to take risks will have lower resistance to new products (S. Ram, 1987). Particularly true for innovations that cannot be tested prior to purchase, consumers with lower self-confidence would rather wait until the performance of the product has been demonstrated adequately (S. Ram, 1987). Finally, as Gefen and Straub (1997) and Shergill and Li (2005) articulate, gender is a significant factor in user adoption rates, as well is age and education.

At this conclusion of the literature review, we would like to acknowledge the fact that, due to the sheer volume of academic research on diffusion of innovation throughout the years, we are aware our factor review may, despite our meticulous dedication and research, at some points be rendered incomplete. On the other hand, the literature review should make apparent to the reader the undeniable and paramount gaps within (i) research on consumer's uptake factors of innofusions, as opposed to diffusion of innovation of lesser impact, (ii) consumer's uptake factors of consumer-financial innovation, and (iii) consumer's uptake factors of Bitcoin, placing severe limitations on academic, and by extension our, understanding of the matter. Such circumstance exasperates our need to contrast the factors presented by corpus of literature against the current empirical situation, in an attempt to better construct a proposal of an apt theoretical framework. We employ second hand empirical analysis to also help us understand polarity of existing factors.

2. Review of Target Group's Expoure

To recapitulate, even though all research discussed in the literature review is relevant for the understanding of the issues raised in this paper, the empirical analysis aims to leverage the literature review as a backdrop in identifying what academically endorsed factors are closest to and best describe the factors currently employed in Bitcoin's innofusion. However, we anticipate some of the studied factors will be automatically eliminated due to (i) inherent lack of explanatory power with respect to our target group (current business students and recent graduates), and our target countries (Sweden and the United States), and (ii) extraneous to the concept of Bitcoin. All of the information presented in the analysis below is made available to our target groups - students and recent graduates in Sweden and the United States, either through (i) publications in promulgated university press or popular media; (ii) sheer relevance of some referenced global events; or (iii) provided during our study, ensuring an equitable knowledge field. To understand the full extent of the following review, we assume the reader is fully acquainted with Bitcoin's technological and conceptual design. For reader's expedience, we adhere to similar chapter structure, and study factors by their academic groups- individual, social and technical.

a. Exposure to Technological Design Factors

Within the Performance Expectancy factor group, Relative Advantage is leveraged in innofusion of Bitcoin and purports Bitcoin design's superiority over any other paper currency's design. As a virtual currency, Bitcoin delivers the epitome traits of a currency- divisibility, transportability and durability, better than a paper currency (Bohme, 2015). More importantly, Bitcoin better appropriates the conceptual design of a currency, for it empowers users to make purchases quicker, cheaper, securely and anonymously. Furthermore, Bitcoin solves for consumers very common macroeconomic issues, that no other fiat currency can inherently solve, and those include, inflation, monetary distribution inequality, government's tendency to produce boom-bust cycles, and government's tendency to increase national debt (Nakamoto, 2008). Performance Expectancy, as numerator of Relative Advantage, has a positive spin today, but we would like to accentuate to the reader that no employment of other parts of Performance Expectancy - except Perceived Usefulness, have yet been leveraged. There is a noticeable gap in having it shown to be useful to people in everyday life and make their life easier- as is tangent to lack of it in communication channels.

As extension of Performance Expectancy, Perceived Usefulness of Bitcoins is another promulgated factor, but from a rather negative angle. Unlike traditional payment system, Bitcoin's Blockchain ledgers execute transactions permanently, to the witness of several other miners and store it safely in an unbreakable block chain, constructing the currency's safety concept, but also making financial transactions irreversible (Bohme, 2015). In cases of unwanted or accidental purchases by Bitcoin, users

will not be able to cancel their upcoming transaction. Furthermore, lower transaction fees offered with Bitcoin accentuated its fit to perform exchange task of the currency. For instance, CoinBase charges 0% on transactions of up to 1 million USD, and 1 percent thereafter, making it still considerably cheaper than any existing transaction option for other currencies. However, critics were quick to point out that even in instances of people owning Bitcoin, consumers would be better off making a purchase with a 1.5 percent cash back credit card, paying a 1 percent fee to convert bitcoins to dollars, then using those dollars to pay the credit card bill (Bohme, 2015; Baron, 2015). Some merchants have responded by providing additional benefits to consumers who pay by Bitcoin. Finally, Performance Expectancy in general is difficult to access by potential new users, since buying even an eight piece of a whole Bitcoin requires a lot of financial investment (Baron, 2015). With visibility of benefits close to non-existent, it is reasonable to expect a rather negative take of performance expectancy.

When we turn to examine the use of Effort Expectancy, the digital currency's Perceived Complexity strikes out as a factor in innofusion. First, Bitcoin's stronghold appears to be its Ease of Use- creating a Bitcoin account is open to anyone and free of charge. It is so informal, that perspective users need not provide their real names or undergo any vetting procedure (Bohme, 2015; Baron, 2015). However, this is negated by making mining- one of the avenues for end-consumers to earn Bitcoins, extremely time- and energy- consuming. Proof-of-work calculation consume more than 173 megawatts of electricity continuously- to put it into perspective, this level equates to approximately 20% of an average nuclear power plant requirement (Baron 2015). Finally, BTC is currently overpriced for the majority of the student and recent graduates group - as is, when one BTC stands at $9,000, in fact overpriced for the majority of population (CoinBase, 2018). As such, it causes a dampening effect on the Ease of Use.

b. Exposure to Consumer Finance Factors

Bitcoin leverages the factor of security in its innofusion, as one of its most positive one. Bitcoin ensures funds cannot be spent twice and that fraud is de facto non-existent between transaction parties, by its technology solving the infamous 'double spending problem' (Nakamoto, 2008). Moreover, security is further institutionalized in Bitcoin's design, by having multiple nodes affirm each transaction, lock it in a block added to the chain of other blocks, and storing public transaction history on the ledger as a testament to user's credit rating. Bitcoin network of nodes is the largest network of distributed computing power ever created– in late 2013 it was estimated that it was as 100 times as large as the 500 most powerful super-computers on Earth, at more than 50,000 petaflops in size (S., 2015). Furthermore, it is extremely difficult to computationally alter newly validated blocks once bound to the chain, thus preventing changes to the transaction history. Finally, even though it is possible to buy Bitcoin up to various monetary limits without supplying identification for the exchange, should a user want to do larger

purchases or a fiat exchange there are set verification processes that need to be followed, propelling a sense a security (Bohme, 2015; Baron, 2015).

Factor of financial risk seems to contrast Bitcoin's infusion. Perhaps most striking one is Operations Risk- Denial of Service- although a small group of governments, including Switzerland, Japan and Saudi, are gearing their fiscal and monetary policies toward adoption of Bitcoin, with Switzerland even accepting tax payments in Bitcoin, other governing regimes and financial structures have heavily interfered with Bitcoin's functioning (Meyer, 2017). As mentioned before, US banks have frozen users accounts that received Bitcoin gains. Similarly, as introduced earlier, another operations risk is using Wallets. Wallets are not only difficult to install, but can also crash and erase people's private keys, costing them access to their own Bitcoins. Alternatively, Coin Wallet platforms, while almost impossible to break into private keys, can still get hacked and collapse. Even though Exchange risk is also rampant with Bitcoin (Bohme, 2015; Baron, 2015), like any other currency, Bitcoin's exchange rate with other fiat currencies oscillates based on market transactions. User will assume the inherent risk of oscillating exchange rates (Bohme, 2015; Baron, 2015). There is also a legal and regulatory risk with using Bitcoin. Firstly, Bitcoin has been associated in the public domain with illegal activity, particularly in relation to the notorious online market for illicit products and services, known as 'The Silk Road' which was closed by the FBI in late 2013 (Baron, 2015). Second, once banks shut down accounts for suspected money laundering, the process of unfreezing requires court intervention. Moreover, in the United States IRS is charging Bitcoin owners with tax evasion, legally treating Bitcoin as a financial asset, since gains through other currency exchanges are not taxed (Kelly, 2017).

We would like to point to the reader that we have not identified exhibited potential within moving funds from today to tomorrow (saving/ investing) and from tomorrow to today (borrowing/ lines of credit), which are two of the missing consumer finance innofusion factors articulated by Tufano (2009).

c.   Exposure to Social Factors

Here, we searched for three factors- (i) whether BTC traits are communicated and if so, are they communicated righteously, (ii) whether both modes of communication are present in discourse on BTC, and are what is their polarity, and (iii) do end-users find the communicated information useful in their daily lives. Firstly, we observe that both mainstream media channels and word-of-mouth channels exist. Mainstream communication channels lack information on Bitcoin as a currency, and coin's traits, use and observability of results. Coverage focus has somewhat centered on BTC's popularity in illicit activities, and scandals including Smart Ponzi Schemes and Swan Lake (Google Trends, 2018). Similarly, word of mouth and peer to peer channels do seem to be developed. Apart from Bitcoin discussion on Bitcoin forums only, other forums and discussion boards have engaged in conversation Bitcoin (Google

Trends, 2018). This is further demonstrated by informational demand for BTC growing, with searches for Bitcoin reaching highest peak in late 2017 (represented by 100) in both Sweden and the United States, compared to 2015 where Google reports search of 2 (relative to the 100 in 2017) for the United States, and 3 for Sweden (Google Trends, 2018). However, both channels lack information on how potential consumers can use BTC in their daily lives (Google Trends, 2018).

d.   Exposure to Individual Factors

Our empirical analysis shows the factor of Motivation is currently highly leveraged in our target group's spheres. Motivation for change is rooted in the plummeting trust in the existing financial and political governing bodies, and finds solution in Bitcoin's democratization and emancipation design (Nakamoto Institute, 2008). When Nakamoto published their paper on conceptualization of Bitcoin in 2008, the world was on the brink of one of the biggest financial crashes in recent history. Government deregulation enabled banks to marry hedge fund trading with derivatives, leaving the financial institutions in demand of more mortgages to ensure profitable sale of those derivatives, de facto removing any impediments in the lines of credit. The ensuing crash eroded global trust in the ability of governments and banks to manage economies, especially within educated echelons of the western society capable of comprehending functioning intricacies of the financial system (Wallace, 2011). Alike toppling dominos, government by government enacted restrictive monetary policies, cutting the money supply, severing lines of credit and leaving people at the mercy of governing bodies (Wallace, 2011). Simultaneously, banks continue to perpetrate numerous scandals (e.g. LIBOR interest rate-rigging scandal; HSBC laundering of Mexican drug cartel money; JP Morgan involvement in the Madoff pyramid scheme) and nurture an infamous bonus culture, to widespread anger of global audience (Bowers, 2016; Protess and Silver-Greenberg, 2014). These events, as Nakamoto points out, have created an environment where people not only consider, but are motivated to adopt Bitcoin as a self-regulating economic substitute to services provided by discredited banks, that in turn gives them a sense of empowerment and ability to guide own financial activity. Hence, we would like to accentuate to the reader that current Motivation is external motivation, conceptualized as a derivative of external macroeconomic events. We would also like to note our review did not identify use of intrinsic motivation and perceived enjoyment.

Moreover, within our group of students and recent graduates in Sweden and the United States, the Image Factor has often been quoted in communication on Bitcoin. By pioneering a decentralized and global platform for a mainstream digital currency, Nakamoto Institute asserts that being part of Bitcoin's journey towards a more equitable and transparent world economic order increases user's self-prestige and feeds their image (Nakamoto Institute, 2008). This comes as a response to a global wave of consumer calls for smoother economic cycles and economic democratization, as manifested at most Universities by emergence of grassroots innovations and technology aimed at uprooting the existence of chronic distrust

across the world in institutions that ought to provide social order, especially governmental and political ones (Nakamoto, 2008). Furthermore, Nakamoto argues Bitcoin's notion that people could civically monitor each other in an anonymous way actually keeps the anonymity of the internet and makes them not have to worry about Big Brother, would resonate with students, who have historically been known to pioneer epochal democratization shifts (Nakamoto, 2008). The factor of Image hence provides end-users with a reputation of a pioneer of financial empowerment.

Dogmatism seems to be employed negatively in the discourse on Bitcoin. Governmental and Financial Institutions' authoritative communication on the cryptocurrency have been heavily publicized and echoed globally, effectively creating a unitary world stage for Bitcoin. When earliest Bitcoin buyers counted their gains from the currency's surge in value in mid-2017, their ensuing sale of the coins paramountly increased their bank accounts. Banks globally- but perhaps mostly in the US and Australia, declared the overnight increase in account conto suspicious and exercised their legal right to freeze accounts in question on account of suspicion of money laundering (Hill, 2013). Danish financial giant Nordea publicly banned its Swedish employees from owning or otherwise engaging with Bitcoin, leaving Swedish unions questioning the legality of the move (Schwartzkopff, 2018). Moreover, United States Government and IRS issued several state subpoenas to Bitcoin's exchange platforms to provide lists of people whose gain on Bitcoin exceeds $20,000, or otherwise be charged with money laundering (Kelly, 2017). Swedish Financial Markets Minister Per Bolund said the government won't engage with Bitcoin developments directly, but will albeit continuously monitor the currency for its potential to be used by criminals and terrorists to evade existing regulation concerning money-laundering and financing of terrorism (Magnusson and Pohjanpalo, 2018).

Distance to Opinion Leaders is inconclusive, despite BTC already growing a diverse group of opinion leaders. Prominent social figures have invested in Bitcoin, spanning several social groups: from highest echelons of modern society, including Bill Gates, to respected investors and social activists such as Ashton Kutcher, to athletic icons including Mike Tyson, and artistic world leaders, such as Donald Glover (a.k.a. Childish Gambino), Melanie Brown of Spice Girls and Curtis James Jackson III (a.k.a. 50 Cent). Infamous Facebook-linked entrepreneurs, angel investors and US Olympians, the Winklevoss twins, sparked a tsunami of mainstream media attention when their early investment into the coin of $11 million catapulted their net worth into billions by 2017. However, even though most of them share positive opinions about Bitcoin's potential, no one has provided observability of results or invited potential users to use it (Schrodt, 2017). Should our study prove that potential users do not relate or find opinion leaders useful, innofusion's owners ought to work on leveraging this stream in BTC's innofusion strategy to reach end-users.

Perceived behavioral control is yet another factor from the corpus of literature breathing in the real world somewhat negatively. In light of the previously mentioned banks exercising the right to freeze users accounts, behavioral control of Bitcoin's fiat conversions has already been severely vandalized. The perceived control over coins themselves, the extent of ownership and self-efficacy is similarly dissentient. One of the world's biggest Bitcoin intermediaries, Global Digital Asset Exchange (GDAX) has been one of entities subpoenaed by the IRS to unveil identities of all traders who experienced gains in excess of 20,000 USD in the period of 2015-2017, despite technological obstructions to do so (Kelly, 2017). Alternative type of intermediary, digital wallet service, an app-alike software that can be installed on people's phones and act as a wallet-on-the-go, requires 30 GB of memory and should the wallet crash, all keys to Bitcoins will be lost. Additionally, websites that provide wallet services eliminate the 30 GB requirement, and although websites claim should the website get hacked or crashed, it is technologically impossible to infiltrate the ownership coding, the question remains if owners can still access it (Bohme, 2015).

3. Hypothesis Development on Factor Polarity

After having reviewed the existing corpus of literature and contrasted it with empirical context, the literature narrows down substantially for three reasons: (i) it is simply not possible to examine all aspects that can possibly influence innovation uptake, (ii) the innofusion focus for business students and recent graduates in Sweden and the United States naturally eliminates several factors, and (iii) BTC's current innofusion makes the existing factors finite. We now proceed to hypothesize polarity of each factor based on the facts presented above. We would also like to disclose again that we do not concern ourselves with the owner of the factor, indeed, should the reader still believe so, would be a misunderstanding this study. All of the following are hypothesized for our target groups- University Students and Recent Graduates in the United States and Sweden. Moreover, these are main factor hypotheses, and for candid testing, some might be further split into several questions and sub-hypotheses in Methodology.

a.   Technological Design Factors

H1: Current perception of the Performance Expectancy is negative.
H2: Current perception of the Effort Expectancy is negative.

b.   Technological Design in Consumer Finance Innovation Factors

H1: Current perception of the factor group Security is negative.
H2: Current perception of the factor group Risk is negative.

c. Social Factors

H1: Current perception of the factor related to being part of the community is positive.

H2: Current employment of communication modes- both Word of Mouth (WoM) and Media exists (hence the factor is positive).

H2: Current type of information transmitted in the WoM is somewhat positive.

H3: Current type of information transmitted Media is negative.

H4: Current information is of no direct use to potential users (hence the factor is negative).

d. Individual Factors

We would like to inform the reader that all factors but personality traits are hypothesised for their polarity, that is a result of factor employment constructs. Interestingly, personality traits - whether they are positive or negative, are purely pertinent to individual's constitution, and cannot be changed by the innofusion's owners or other actors. However, if the polarity of these traits is positive, it points to a climate welcoming to innovation.

H1: Current perception of the factor group Motivation is positive.

H2: Current perception of the factor group Image is positive.

H3: Current perception of the factor group Dogmatism is negative.

H4: Current perception of the factor group of Perceived Behavioral Control is negative.

H5: Current perception of the factor group of Personality Traits is positive.

III. Methodology

1.   Background and Choice of Research Method

The question of which factors play crucial part in motivating users to adopt Bitcoin as a currency and their polarity, therefore allowing it to expand actual user base and break into the mainstream, is a largely unexplored one. Given this unmapped nature of our research topic, we aimed to approach it as comprehensively as possible in terms of the choice of method of data collection. The data was collected by means of qualitative research, which is appropriate due to the exploratory nature of the research question and limited existing research regarding influential factors (Silverman, 2004). As could have been somewhat expected, research methodology had to be adjusted later on in the process since it was discovered that the intended data collection method was not appropriate and did not allow us to gather information that could answer our research question in a satisfactory manner. This section of the thesis presents the stages of data collection and how they evolved compared to initial plan, along with motivation for the particular choice of method. The chapter is concluded with reflections on the quality of the study and methodological limitations.

2.   Pre-Study

Considering the aforementioned unexplored nature of our subject of study, we decided to precede the main data collection stage with a pre-study, which can serve to increase understanding of the research area (Flick, 1998). The main data collection was intended to be a survey designed to test if the innofusion adoption factors which we identified and hypothesized about after conducting the review of existing research on the adoption of innofusion play a part the decision-making process that individuals go through prior to deciding on whether or not to adopt Bitcoin. The pre-study's goal was to confirm our initial choice of factors as well as uncover potential additional ones which are not captured in the existing body of research on innofusion. Consequently, the pre-study would allow us to refine our approach to data collection, inform the next step in this process and reinforce the findings.

a.   Pre-Study Design and Sample

Following the synthesis of existing literature on the adoption of innovation in general, adoption of innovation in the financial technology sector as well as the various studies related to Bitcoin, we hypothesize about the factors which impact the decision to adopt Bitcoin. These factors were then grouped into 4 categories (technological design, technological design in consumer finance, social and individual) and served as a foundation for developing a survey (Appendix 1), which was presented to the participants of the pre-study and followed by open questions inquiring about any additional factors that

the participants of the study considered relevant. Through this abductive approach we intended to use the findings generated from this stage of data collection to adjust the original framework and arrive at a model that could be then tested in the main study (Dubois & Gadde, 2002).

The sample for this pre-study was deliberately narrowed down to current business students and recent business school graduates (i.e graduated within the last 2 years) in Sweden, who are existing Bitcoin owners. The choice of Bitcoin owners at this stage was motivated by the fact that this group could shed light on the factors that motivated their decision to purchase Bitcoin, as opposed to mere speculation.

Business students were chosen due to this group's awareness and likely level of knowledge about a financial innovation such as Bitcoin and are likely to be include probable adopters of this cryptocurrency. Therefore, as a group, business students should be targeted by Bitcoin during efforts to scale up and break the chasm into the mainstream.

A survey was created in Qualtrics and distributed directly via email to five participants (N = 5, male = 3, female = 2, average age = 25,4) who were identified and contacted through our student network in Sweden. As the pre-study was designed to include a relatively small sample and aimed at expediting discovery of any new factors and confirming the inclusion of the hypothesized ones, we made use of the contacts readily available in Sweden, rather than in both countries considered for the main study. This approach was also undertaken since we did not want to introduce unnecessary variable at this stage, given the sample size. Responses were collected in early April 2018 and their complete anonymity was ensured, which has been vital to persuading participants to answer the survey, which is not at all surprising given the somewhat sensitive nature of the study. All of the quotes in this thesis are presented anonymously, with consent from the participants of the study.

  b.   Pre-Study Results

Detailed results of the pre-study are presented in Appendix 1. Since they directly influenced the choice of method for the main study, we discuss them in this section of the thesis.

The collected data was extremely inconclusive and showed little consensus among the respondents regarding tested factors. Consequently, we hypothesized that given Bitcoin's dual possible use – as a currency and/or an asset – the motivation for adopting it as an innovation would impact the results of the survey and may be the source of the discrepancies in our findings.

In order to confirm this assumption, we followed up individually with each of the respondents, who consented to taking part in a short, semi-structured interview. The structured part of the interview consisted of questions regarding motivation for purchasing Bitcoin, as well as time of purchase, which was followed by a discussion aimed at confirming that our understanding of the reason behind interviewee's adoption of Bitcoin is correct. The interviews lasted from 11 to 15 minutes; 4 interviews were conducted in person and 1 was conducted via Skype. Each interview was transcribed within 24

hours. We purposefully decided against email interviews in order to facilitate the process of data collection by allowing for an opportunity to ask any follow-up questions immediately (Meho, 2006). As it transpired (Appendix 1), Bitcoin owners who participated in the pre-study were largely motivated by the prospect of potential financial gain that could be obtained from acquiring Bitcoin, with 4 out of 5 respondents stating the return on investment as the key reason behind their decision to adopt it.

"People who got into Bitcoin few years ago didn't really think of it as a currency, including myself. I thought it might be an opportunity to make some money, I never intended to use it for payments." (pre-study interviewee 2, male, Sweden)

One of the interviewees quoted curiosity about emerging innovations combined with influence from their social circle as the key reason for purchasing Bitcoin. Additionally, we discovered that the participants adopted Bitcoin relatively long time ago, ranging from 2 to over 4 years prior. This fact highlighted another limitation of this particular choice of a sample, namely that the factors which were considered by the respondents might be outdated and not reflect the current situation. Given the fast pace of the developments surrounding Bitcoin, it is reasonable to hypothesize that the set of factors influencing the decision to adopt it has evolved over time.

This result is mirrored by the findings of Glaser et al. (2014), who discovered that the individuals looking to acquire digital currencies are largely perceiving it as a financial asset rather than a currency. We have therefore concluded that as we are exploring the factors which would allow Bitcoin to become a mainstream currency, the sample choice should be modified to include only individuals who do not own Bitcoin in order to discover their motivations and concerns at this point in time. Including existing Bitcoin users would produce results which do not allow for drawing conclusions about the research topic. Crucially, we require greater control over the interpretation of the questions and need to ensure that our respondents are entirely clear about the premise of the study – exploring Bitcoin's potential as an innovative currency, rather than an investment vehicle.

Furthermore, answers to Question 9 ("Are you familiar with the concept of Satoshis?") allowed us to gain insight into the participants' level of knowledge about Bitcoin in an objective way, without relying on self-reporting. The results show a varying level of expertise among the respondents, which brings to light the potential limitation of utilizing a survey in the main study. Namely, considering the potentially vastly different levels of knowledge among the respondents the answers could reasonably be claimed to suffer from a significant knowledge bias, which cannot be alleviated in a satisfactory manner through providing background information along with the survey. In order to minimize the risk of generating inconclusive data as a result of this issue, we decided against using a survey and replace it with structured interviews.

Consequently, we dismissed the results of the pre-study, while acknowledging its importance and contribution towards refining the approach to further data collection, both in terms of the sample and method.

3.   Main Study

    a.   Main Study Design and Sample Choice

As explained in the previous section, the results of our pre-study informed the choice of method for main study data collection, as well as sample choice. The data was collected through structured interviews with business students (undergraduate, graduate and recent graduates (i.e. graduated within the last 2 years); age range 23 to 27, average age = 25,1), who have never purchased Bitcoin. The motivation for choosing business students remains the same as explained in the section describing the pre-study. Since the pre-study showed that depending on the underlying motivation for acquiring Bitcoin the considered adoption factors will differ, only non-owners were chosen for the study. However, for this part of the research we decided to interview individuals living in two countries – Sweden and the United States. Our primary motivation for selecting our target groups in the US and Sweden- for its inherent similarity to Bitcoin's current goal of breaking into early adopters, was articulated in earlier chapters of the paper. Additionally, the split was designed to uncover potential dominant trends in both countries and test whether we can observe considerable, clear differences which could be explored in further research and therefore inform the effort of Bitcoin when attempting to scale up in either country. Due to the location where this study was performed and consequently available resources, Sweden is a natural choice, whereas the United States presented an interesting opportunity due to potential differences in the level of trust in the authorities observed in the inhabitants of these countries (The Economist, 2017). Bitcoin's independence from the governing bodies is assumed to be one of the key benefits of Bitcoin and a significant factor leading to its adoption by users (Ammous, 2018). We decided to inquire about the country of permanent residence rather than nationality since business student communities are made up of many various nationalities and given the qualitative nature of the study the relatively small sample would not be appropriate to draw any conclusions about trends particular to each nationality (Lieberson, 1991). Additionally, given the long-term residence in a specific country we can assume that a certain level of assimilation would occur, allowing for comparing the results (Cemalcilar and Falbo, 2008).

We deliberately attempted to avoid significant variations in the sample (other than country of residence) in order to limit the risk related to overfitting. This purposive sampling approach is highly appropriate and common for qualitative research (Bryman, 2012). To some extent, given that the decision to interview non-owners versus owners of Bitcoin was guided by the insights of the pre-study, this choice represents a theoretical sampling methodology. Respondents were identified and contacted through utilizing our student networks both in Sweden and the United States, as well as via Facebook ads posted

in groups for students in business schools. Full anonymity of the answers was guaranteed and verbal consent for transcribing the interviews was secured.

Overall we conducted 37 interviews (20 interviews in person, 17 interviews via Skype) with business students and recent business school graduates in Sweden and the United States (13 males living in Sweden, 10 females living in Sweden, 8 males living in the United States, 6 females living in the United States) in April and early May 2018. We have deliberately tried to ensure relatively equal gender distribution within each location, in order to increase the validity of any potential findings related to gender-specific trends. All of the interviews lasted between 42 and 77 minutes. The interview guide included 34 structured questions and a final open question aimed at unearthing any potential uncovered factors. Each interview was conducted by one of the authors, transcribed and coded within 24 hours in Excel, taking particular note of the most poignant quotes. In order to increase credibility, each interview was also coded independently by the second author based on the transcription. Appendix 2 presents details regarding the format and results of the interviews.

The reasons behind selecting structured interviews as the method of data collection are multiple. Firstly, it was crucial to ensure that any knowledge gaps that could bias the results could be filled immediately by the interviewer to ensure relatively comparable level of understanding among the respondents (Edmondson and Mcmanus, 2007). It is important to note that interviewers made every effort to avoid impacting the results in any way while providing additional information, which was purely objective and offered no personal perspective of the interviewee.

Secondly, we wanted to confirm beyond doubt that the participants understood that we are measuring factors leading to adoption of Bitcoin as a currency, rather than means of financial gain. Another practical reason is that we were aware that as our questionnaire was designed to probe the research subject in a very comprehensive manner, it involved posing a large number of questions. Consequently, we were aware of the high probability of receiving many incomplete responses due to the sheer length of the survey and aimed to ensure gathering a full set of data from each respondent.

Finally, the structured nature of the interviews is appropriate for directly testing hypotheses posed following the review of existing research regarding adoption of innovation and innofusion. It also allows to maintain rigor and minimize interviewer bias through asking leading questions as well as enhance consistency and avoid any differences related to the interviews being conducted by two different individuals (Bryman, 2012). In practice, it also allowed for a less time-consuming process of analysis and interpretation of data, which is traditionally a limitation of qualitative research.

Furthermore, we were mindful of the risk related to overfitting when attempting to extrapolate the results gathered from a very heterogeneous yet relatively small sample. (de Winter, Dodou and Wieringa, 2009; Babyak, 2004).

While the interviews were comprehensively structured, we aimed to create trust and build a rapport with the interviewee through engaging in small talk in the beginning of the interview, maintaining a friendly tone throughout the interview and being responsive (Rubin and Rubin, 2012), while generally adhering to the structure of the interview. This approach was intended to ensure that participants feel comfortable enough to share truthful answers, particularly as some of the questions could be perceived as rather sensitive (Leech, 2002), thus further increasing the credibility of obtained results.

b.   Questionnaire – Interview Guide

This section presents the questionnaire used during our structured interviews. Its contents and logic were guided by the extensive critical review of existing research. The questions were split into three sections, according to factor groups identified prior to the study. Each answer was coded according to the 5-point Likert scale assigned to every question, as detailed in Appendix 2 and further explained in this chapter.

i.   Technological Design Factors (incl. Technological Design in Consumer Finance)

These factors are directly informed by the existing research pertaining the technological design of Bitcoin as well as technological design of consumer finance innovations specifically, in relation to Bitcoin. In terms of the former, we are testing the performance expectancy, effort expectancy and motivation (questions 1 to 10). With regards to the latter, we explore factors linked to security risks and concerns particular to the sphere of innovative products in consumer finance (questions 10 to 15).

#	Question	Factor tested	Result interpretation
1	I believe that using Bitcoin will make my transactions faster.	Performance Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
2	I believe that using Bitcoin will make my life easier.	Performance Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
3	I believe that using Bitcoin will make my transactions cheaper.	Performance Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
4	I would find Bitcoin useful in my everyday life.	Performance Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.

5	I believe that learning how to use Bitcoin will be easy for me.	Effort Expectancy	Testing the level of perceived self-efficacy. Strong positive response (5) indicates high level of self-efficacy and perceived benefit, strong negative response (1) indicated low level of self-efficacy and perceived concern, particularly if linked with no intention to adopt.
6	How much of a time commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
7	How much of a money commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
8	I believe that Bitcoin is reasonably priced.	Effort Expectancy	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates perceived concern.
9	I am familiar with the concept of Satoshis.	Effort Expectancy	Testing the perceived trialability, as well as level of knowledge about Bitcoin without relying on self-reporting. High score (5) indicates high level of knowledge and high perceived trialability. Low score (1) indicates low awareness of trialability potential and low level of knowledge (indirect indication of the effectiveness of the communication channels).
10	Are you concerned about falling victim to false Bitcoin sellers?	Security Risk/Counterparty Risk (Consumer Finance)	High score (5) indicates perceived concern, low score (1) indicates this is not deemed a concern/inhibitor.
11	I would feel secure to own and use Bitcoin.	Security Risk (Consumer Finance)	High score (5) indicates perceived concern, low score (1) indicates this is not deemed a concern/inhibitor.
12	Security is my primary concern when considering using Bitcoin.	Security Risk (Consumer Finance)	Strong positive response (5) indicates existence of a concern, strong negative response (1) indicates low importance of security as a concern.
13	Do you trust different Coin Wallet platforms?	Security Risk/Operational Risk (Consumer Finance)	Strong positive response (5) indicates low perception of operational risk concern, strong negative response (1) indicates concern/issue.
14	I believe that Bitcoin will maintain its value over time.	Security Risk/Market Risk (Consumer Finance)	Strong positive response (5) indicates low perception of market risk concern, strong negative response (1) indicates concern/issue.

#	Question	Factor tested	Result interpretation
15	Do you think that using Bitcoin might cause legal problems for you?	Security Risk/Legal & Regulatory Risk (Consumer Finance)	Strong positive response (5) indicates low perception of legal/regulatory risk concern, strong negative response (1) indicates concern/issue.

ii. Social Factors

These factors relate to the social aspect of adopting innovation, as guided by the existing research and narrowed down to determinants most applicable to Bitcoin.

#	Question	Factor tested	Result interpretation
16	Becoming a member of the Bitcoin community would be a bonus to owning Bitcoins.	Community Aspect	Strong positive response (5) indicates existence of a perceived benefit, strong negative response (1) indicates this is not a deemed a benefit.
17	If most of my peers would use Bitcoin, I would be more inclined to use it as well.	Subjective Norms/Social Influence	Strong positive response (5) indicates high impact of a factor and positive reception of the WoM channel, strong negative response (1) indicates this is not a determinant and not a powerful communication channel.
18	There is enough information about Bitcoin for me to look up.	Communication Channels	Indicates effectiveness of the communication channels (successful if high score (5), lacking if low score (1)).
19	I have received enough information about the benefits of using Bitcoin.	Communication Channels	Indicates effectiveness/transmission of positive information of the communication channels (successful if high score (5), lacking/negative information if low score (1)).

iii.   Individual Factors

These factors relating to personal characteristics have been studied to a limited extent in the innovation adoption literature, however they remain largely unexplored when it comes to adoption of Bitcoin as an innovation.

#	Question	Factor tested	Result interpretation
20	I value advice from third party authorities regarding Bitcoin (economic and political governing bodies, media, opinion leaders).	Dogmatism/Subjective Norms	Strong positive response (5) indicates positive reception of the factor, strong negative response (1) indicated negative reception of the factor.
21	I believe that using Bitcoin would be fun.	Motivation	Strong positive response (5) indicates perceived benefit, strong negative response (1) indicates this is not considered a benefit.
22	I enjoy challenging the status quo.	Self-confidence & Proactiveness	Testing personal traits linked to propensity to adopt innovation. High score (5) signals existence of a trait, low score (1) signals lack of a trait. Presence of the trait related to the proclivity to embrace innovation is examined in the context of entire interview, particularly relating to the questions referring directly to the intention to adopt Bitcoin (Q28-Q30).
23	I feel confident when handling new situations.	Self-confidence	
24	I enjoy testing the latest technological inventions	Personal Innovativeness	
25	Out of my peers, I am usually the first one to try out new innovations.	Personal Innovativeness	
26	I enjoy learning about my personal areas of interest.	Personal Innovativeness	
27	My previous experiences with innovations have been positive.	Personal Innovativeness	
28	I am interested in learning more about Bitcoin.	Intention to adopt	High score (5) indicates intention to adopt Bitcoin, low score (1) indicates no intention to adopt Bitcoin. Answers to these questions are examined in the context of the entire interview.
29	I am considering using Bitcoin in the future.	Intention to adopt	
30	I intend to use Bitcoin in the future.	Intention to adopt	

31	Bitcoin's values of anonymity and decentralization would encourage me to use it.	Extrinsic Motivation (alignment with personal values)	High score (5) indicates positive reception of the factor, low score (1) indicates negative reception of the factor.
32	If using Bitcoin would improve my image, I would be more inclined to do it.	Self-image (prestige/status)	High score (5) indicates positive reception of the factor, low score (1) indicates negative reception of the factor.
33	I believe that I would have full control over the Bitcoins I buy.	Perceived Behavioral Control	High score (5) indicates positive reception of the factor, low score (1) indicates negative reception of the factor.
34	I trust the existing financial system with my money.	Extrinsic Motivation (alignment with personal values)	High score (5) indicates positive reception of the factor, low score (1) indicates negative reception of the factor.

The questionnaire was concluded with an open question inquiring about the existence of any other factors relevant to the decision-making process from the interviewee's point of view, included to limit the risk of missing out on any important findings not captured in the original design.

4.   Quality of Study and Methodological Limitations

One of the key measures aimed at increasing the quality of the obtained data was the choice of the study sample. Considering the fact that it is fairly homogeneous apart from the location variable, the small number of participants still allows for making conclusions about the sample group. At the same time, this choice represents a significant limitation of this study, however given the unexplored nature of the issue as a whole, this tradeoff is justified in the authors' opinion since it allows to discover more reliable and credible results pertaining an interesting target group, without risking including factors which are on the surface reported by a sample representative of the broader population, but in fact are present only in that sample and are not generalizable to the wider world.

Additional limitations in a qualitative study stem from the willingness of the respondents to disclose information, especially given the sensitive nature of some of the questions (i.e. the ones aimed at measuring personal characteristics such as self-confidence or level of proactiveness).

a.   Reliability

The reliability of the study describes the stability and reproducibility of its findings. It can be split into two spheres, external and internal (Bryman and Bell, 2007). The first dimension refers to the possibility of the study being replicated, which is often quoted as a shortcoming of qualitative studies (LeCompte and Goetz, 1982), since those are by nature set at one point in time and depend highly on the social context. We increased the reliability of this study by designing and adhering to the pre-designed interview guide.

Additionally, each interview was transcribed and coded by the person conducting it. Every interview was conducted by only one of the authors. This measure was deliberately undertaken in order to allow for the second author to code the answers independently, based on the transcript from the interview. For 34 out of 37 interviews we obtained matching coding results. The remaining 3 in which we noted some discrepancies (for maximum 2 questions in each), additional clarification was sought through a follow-up interview. Both authors participated in these 3 additional interviews, which were conducted through the same medium as the original one and lasted from 12 to 22 minutes. The follow-up interviews were conducted within 4 days from the date of the initial interview. In all of the cases, additional explanation provided by the interviewee enabled a clear consensus with regards to the interpretation of the result and coding. Finally, we ceased to seek additional participant once a satisfactory level of saturation was reached (Merriam, 2009) and we stopped receiving any responses that would bring about any new points of view.

b.   Validity

The validity of the study describes the degree to which the results represent the research phenomena in question. Similar to reliability, it can be observed from the external and internal perspective. External validity is synonymous to transferability and reflects the extent to which the results can be generalized across social settings (Bryman & Bell, 2007; Merriam 1998). Given the relatively small sample size, the degree of external validity is limited, however simultaneously, as we have purposefully targeted a particular group in our sample, the results can be used to draw conclusion about the target group in question, especially considering the relative similarity of the obtained results. Although transferability can be challenging in qualitative studies, in the authors' view the social context of this study and its boundaries are clear enough to allow for performing a transfer of findings within that context (Denscombe, 1998) and aid researchers in the future in this process. At the same time, we are aware that a sufficiently "thick description" (Lincoln & Guba, 1985) of the research is not allowed due to the confidentiality of respondents.

To further increase the validity we used constant comparison, by comparing received data with the suggested research model resulting from the study of existing literature. Internal validity is linked to the connection between obtained data as compared to the theoretical hypotheses built based on the study of existing research (LeCompte & Goetz, 1982). This measure was improved by continuously comparing our proposed model and ideas with research findings and eventually revising the theory based on the results of the study.

c.   Credibility

While both reliability and validity have traditionally been used to gauge the quality of research studies, in the case of qualitative studies the quality of data can be assessed based on trustworthiness (Bryman & Bell, 2007), which can be measured through the study's credibility and transferability levels. In this study,

we aimed to increase credibility through adopting an established research method, as well as guaranteeing full anonymity to all the participants, in order to maximize the opportunity of securing truthful responses. The interviews were transcribed and access to the transcript was provided to the participants upon request, which was a condition explained prior to setting up each interview. Additionally, in order to facilitate information-sharing, the interview guide placed more sensitive questions towards the end, once a rapport was established between the interviewer and the participant (Dempsey et al., 2016). These are particularly the questions referring to personal traits, where some characteristics are perceived as more desirable, therefore potentially making some participants inclined to answer in a manner that is viewed more favorably by the society. Moreover, we encouraged truthful responses through appealing to the interviewee's sense of pride and vanity by highlighting how important their contribution is to the study during the process of setting up the interview, as well as throughout it (Crawford, 1997).

The pre-study itself also constituted a measure aimed at increasing credibility, since it allowed us to refine the sample and method of the main data collection, thereby validating our final approach. Finally, credibility was enhanced through allowing the two authors to examine the findings separately (Merriam, 2009).

d. Dependability

Dependability in a qualitative study related to its reliability and consistency (Shenton, 2004). While efforts have been made to ensure a high degree of reliability, it is challenging to secure consistency when exploring a phenomenon such as Bitcoin, which occurs in an environment marked by fast development and changing conditions,

Additionally, the level of dependability is linked to the study's credibility (Lincoln & Guba, 2000). As aforementioned, we counteracted the credibility concerns by explaining how the data collection was conducted and evaluated, as well as by engaging two individuals independently in the evaluation process.

IV. Empirical Findings

This section presents the results of the data collection, divided according to the tested factor groups. We compare the findings with the factor model proposed following the review of existing research in the field of adoption of innofusion as well as studies exploring the phenomena of Bitcoin in particular. In this presentation of findings we refer to the coded answers, of which the details can be found in Appendix 2, while providing selected quotes aimed at illustrating some of the more interesting trends observed during this data collection process.

Throughout the questionnaire we inquire about the adoption factors in relation to their perceived polarity and direct/indirect intention to adopt/use Bitcoin. This approach is rooted in the attitude-behavior theory, which shows that intentions are good predictors of actual behavior (Ajzen and Fishbein, 1980). Consequently, we have grounds to expect the findings gathered in relation to respondents' intention are likely to materialize as actions.

1. Technological Design Factors (incl. Technological Design in Consumer Finance)

Q 1: I believe that using Bitcoin will make my transactions faster.
(Performance Expectancy)

Overall, we observe no strong opinions about this factor, as most respondents "neither agree nor disagree with this statement", with the question scoring an average response of 2,9. We received similar answers from participants in both locations and there was no considerable difference between the responses obtained from males and females.

"I don't think there are any particular advantages when it comes to transaction processing type when you switch to Bitcoin. Either way, I don't have any issues with this feature when I make payments now, so it wouldn't be something that would persuade me to use." (interviewee 18, male, Sweden)

"I haven't really heard of any gains in terms of the speed of transactions when you pay with Bitcoin." (interviewee 4, male, US)

"My impression is that actually the transaction speed could be an issue? Even if it is resolved, I have no reason to complain about this aspect when I make payments in my everyday life, so it wouldn't be solving any problems for me." (interviewee 11, female, US)

On the whole, the respondents do not appear to perceive transaction speed as either a significant benefit or inhibitor which would influence their decision on adopting Bitcoin.

Q 2: I believe that using Bitcoin will make my life easier.
(Performance Expectancy)

In both Sweden and the United States, we have received markedly strong negative responses to this statement, as it received an average score of 1,8 ("somewhat disagree"); signaling low expectation regarding performance and belief in Bitcoin's ability to make users' lives easier.

"I don't have any particular issues with the way I make payments. Perhaps on special occasions, when I travel or need to pay in foreign currency, but otherwise I can't see how Bitcoin could improve my life" (interviewee 30, female, Sweden)

"To be honest, my impression right now is that using Bitcoin requires more effort than it's worth. If there is some way in which it could improve my day-to-day, it hasn't been effectively advertised." (interviewee 3, male, US)

"I actually experience quite a few problems in my everyday life due to issues related to the inefficient financial system, bu t I can't really see that Bitcoin would help me solve them." (interviewee 13, female, US)

Q 3: I believe that using Bitcoin will make my transactions
cheaper. (Performance Expectancy)

Similar to the question above, we receive responses indicating little to no perception of this factor as a benefit, while collecting strong opinions about it signaling that it is seen as an inhibitor. At the same time, we have gathered answers showing that this is an important consideration when deciding upon Bitcoin adoption. The average score is 1,9 ("somewhat disagree") with no significant differences related to gender or location.

"I don't think that the fees are very clear; my understanding is that it's not the cheapest way to make payments. Possibly cheaper than the services I use currently, but I would need to explore this." (interviewee 35, female, Sweden)

"The transaction fees are something that I struggle with, since I travel a lot, but I'm not sure that at the moment Bitcoin offers any serious savings." (interviewee 26, male, Sweden)

"I don't believe that it will make my payments cheaper, but I wish it could." (interviewee 9, female, US)

Q 4: I would find Bitcoin useful in my everyday life.
(Performance Expectancy)

The average score for this question is 1,2 ("strongly disagree") and we observed no differences related to location or gender. We see that the participants very clearly perceive no use for Bitcoin in their everyday life.

"To be quite honest, I'm struggling to see how I could find a use for Bitcoin without expanding a lot of effort on switching to it as a currency." (interviewee 12, female, Sweden)

"I don't think so. I'm not exactly happy with the current system and the way I make payments, but I'm not sure that Bitcoin would solve my problems." (interviewee 8, male, US)

"I disagree. Despite a lot of talk about Bitcoin in the media, I'm still not sure how it would be useful in my everyday life without me having to spend a lot of money and time on switching to it, or at least trying to use it for some of the payments." (interviewee 20, male, Sweden)

Overall, factors related to the performance expectancy gather very negative responses, which is in line with the hypothesized result. This demonstrates the presence of strong perceptions regarding those aspects, as well as the need to address them as concerns. Bitcoin's benefits linked to these factors, if present, have not been successfully communicated.

Q 5: I believe that learning how to use Bitcoin will be easy for me.
(Effort Expectancy, Self-efficacy)

The average score for this question is 3,5 ("neither agree nor disagree"). However, we see variation in the results both between countries as well as between genders. Male respondents in the United States answer positively to this statement (average score 3,9 = "somewhat agree), similar to both male and female respondents in Sweden (average scores 3,9 and 4,0 respectively, both indicating a "somewhat agree" reply). Effort expectancy related to this aspect is judged positively by those group, signaling fairly high level of self-efficacy, which is linked to propensity to adopt innovation. We note different results among females in the United States, with an average score of 2,2 ("somewhat disagree"), indicating lower level of self-efficacy and potential concern related to the effort expectancy.

"I have not really looked into it, but I'm pretty sure it wouldn't be too hard, especially since I know some of my friends wh o use it." (interviewee 33, female, Sweden)

"I haven't tried it, but if it's meant to be used as a currency, it shouldn't be difficult to learn for an average person." (interviewee 5, male, US)

"I'm not sure, especially since I don't really know any people who do use it in their everyday life." (interviewee 10, female, US)

Q 6: How much of a time commitment do you think getting started with Bitcoin would involve? (Effort Expectancy)

The average score for this question is 3,3 ("a moderate amount"), with similar responses recorded in both countries. However, while other groups' responses oscillate around the middle answer, female interviewees in Sweden on average judged this factor more positively, with average score at 3,8 ("a little"). We see an absence of clear concern related to this factor.

"Probably not too much, I think I would be able to learn how to use it quite quickly once I committed to it." (interviewee 32, female, Sweden)

"I'm not quite sure, but probably somewhere in the middle. I don't really have anyone in my close circle who uses it for regular payments, so it's hard to judge, but I'm sure if I decided to adopt it, it wouldn't take too much time." (interviewee 18, male, Sweden)

Q 7: How much of a money commitment do you think getting started with Bitcoin would involve? (Effort Expectancy)

The average score for this question is situated in the middle at 3,2 ("a moderate amount"). However, we see differences in responses based on the location. Respondents in the United Stated on average scored 3,9 ("a little"; no considerable differences based on gender were observed), suggesting lower perception of this factor as a likely inhibitor. In Sweden, the participants' average answer score was 2,4 ("a lot", no difference based on gender was observed), implying that this factor is perceived negatively, as a potential barrier.

"I believe it would require a moderate amount of money. I would not be looking at it as an investment, so not too much upfront cost would be involved, but at the same time the price seems to be a bit inflated." (interviewee 3, male, US)

"I think that it might cost quite a bit, especially nowadays, when the price is rather inflated." (interviewee 21, male, Sweden)

Q 8: I believe that Bitcoin is reasonably priced.
(Effort Expectancy)

Average response to this question is 1,5 ("strongly disagree"), with respondents in Sweden judging the price value slightly more negatively (1,3) than their counterparts in the United States (1,7), signaling negative perception of the price value and likely consideration of this aspect as a factor across all groups.

"I disagree with that, the price seems to be driven up by the hype rather than real value." (interviewee 11, female, US)

"Definitely not… At the moment, the price looks like it is increasing just because of the hype and attention. I don't think this is the best time to start using Bitcoin." (interviewee 23, male, Sweden)

Q 9: I am familiar with the concept of Satoshis.
(Effort Expectancy)

This question was answered negatively (average score = 1,1; "definitely not") across all groups, determining that the respondents are not aware of the trialability opportunities. This response indirectly provides information regarding the effectiveness of communication channels in conveying the benefits of Bitcoin.

On the whole, factors related to Effort Expectancy are perceived as neutral, with the exception of the one linked to price value and trialability, which received negative responses, in line with the hypothesis.

Q 10: Are you concerned about falling victim to false Bitcoin sellers?

(Security Risk/Counterparty Risk)

Average score for this question differs based on genders, with males in both countries on average scoring it at 3,0 ("might or might not"). This indicates no strong perception of this risk being a concern. On the other hand, female interviewees in both countries replied "probably yes" to the question (average score = 3,8; with females in the US displaying higher level of concern at 4,0 than their Swedish counterparts, scoring at 3,6), showing presence of a concern regarding counterparty risk in that group, in line with the assumed hypothesis for this factor subgroup.

"This wouldn't be something that I see as a risk. I'm fairly certain that I would be able to distinguish the legitimate seller from a suspicious one." (interviewee 21, male, Sweden)

"It would be a concern for me, particularly since I don't have any prior experience with this currency." (interviewee 31, female, Sweden)

Q 11: I would feel secure to own and use Bitcoin.

(Security Risk)

This statement is scored negatively across all groups (average score = 2,0; "somewhat disagree"), with respondents in the United States expressing higher level of concern (average score = 1,8) than the ones in Sweden (average score = 2,3). There were no clear differences in responses related to gender. This result is in line with the hypothesis.

"I don't think the system can provide enough security for me to use it, or even own it." (interviewee 10, male, US)

"Probably not, I have some reservations about being able to use it in a secure way." (interviewee 20, male, Sweden)

Q 12: Security is my primary concern when considering using Bitcoin.

(Security Risk)

While the average score oscillates around the middle (3,4; "neither agree nor disagree"), we observe differences linked to gender. Female respondents in both Sweden and the United States display the same level of concern with this factor (4,0), while male respondents on average scored this factor at 2,8), with interviewees in the United States expressing slightly lower concern than the ones in Sweden (average scores of 2,6 and 3,0 respectively). This response does not confirm the hypothesis, which proposed that security would be perceived as a key concern.

"I wouldn't consider using it as a currency until I was sure it was completely secure." (interviewee 30, female Sweden)

"Actually, I'm more concerned with it working as a currency and being able to make payments fast and quick." (interviewee 23, male, Sweden)

Q 13: Do you trust different Coin Wallet platforms?
(Security Risk/Operational Risk)

Overall average score of 2,4 ("probably not") indicates low level of trust and concern with operational risk associated with using cryptocurrencies. We observe the same score for male respondents in both countries (2,8), while female respondents in both countries display higher level of concern (average score = 1,8 in the United States; 2,2 in Sweden). These results are in line with the hypothesis assuming negative perception of this factor.

"I don't think I have enough knowledge about all of these, but I have little trust in the ones other than the most recognizable ones." (interviewee 7, male, US)

"I definitely don't think these are at the stage where they can be completely trustworthy." (interviewee 12, female, US)

Q 14: I believe that Bitcoin will maintain its value over time.
(Security Risk/Market Risk)

Respondents across all groups replied negatively to this question (average score = 1,7; "probably not"), expressing clear concern linked to market risk. Similar to the result for the Operational Risk factor, this response also confirm the hypothesis about the negative perception.

"Definitely not; the price right now is inflated by the hype and we have seen Bitcoin crash multiple times before." (intervie wee 5, male, US)

Q 15: Do you think that using Bitcoin might cause legal problems for you?
(Security Risk/Legal & Regulatory Risk)

Average score for this factor oscillates around the neutral answer (2,6; "might or might not"), signaling that it is not perceived as a significant concern. Answers differ slightly across gender groups, with females in both countries scoring 2,8 on average ("might or might not"), while male respondents in Sweden and the United States express lower level of concern, with average score of 2,2 ("somewhat disagree"). This result does confirm the hypothesized positive perception of this factor.

"Probably not; unless you are using it for any illegal purposes." (interviewee 24, male, Sweden)

"Possibly, I'm not entirely certain. I don't think enough people are using it as a currency to understand the situation." (interviewee 28, female, Sweden)

2.   Social Factors

Q 16: Becoming a member of the Bitcoin community would be a bonus to owning Bitcoins. (Community Aspect)

This factor scored low universally across all groups, with the average score of 1,3 ("strongly disagree"), indicating that the possibility of getting access to the Bitcoin user community is not perceived as a benefit of using Bitcoin or a factor considered during the process of making a decision about adoption of Bitcoin. The hypothesized positive perception of this factor was rejected.

"Definitely disagree. If I was meant to use it as a currency, I wouldn't really care about connecting with other people who also own it." (interviewee 36, female, Sweden)

"If I were to switch to Bitcoin I would only be concerned with it performing seamlessly as means of payment. This aspect has no impact on my decision." (interviewee 8, male, US)

Q 17: If most of my peers would use Bitcoin, I would be more inclined to use it as well. (Social Influence)

Average score of 3,9 ("somewhat agree") indicates that subjective norms, in particular peer influence, do play a part as a factor in the decision to adopt Bitcoin and WoM is a potentially powerful channel of communication. This result is in line with the hypothesis.

"Definitely, at least I would be able to ask someone directly about their experience (interviewee 5, male, US)

"I think so, if Bitcoin got this "stamp of approval" from my friends I would be less apprehensive about using it myself." (interviewee 30, female, Sweden)

Q 18: There is enough information about Bitcoin for me to look up. (Communication Channels)

All respondent groups score this aspect positively, with average score of 3,9 ("somewhat agree"), indicating perceived high availability of information sources, confirming theinitial hypothesis.

"I think so; nowadays the media and internet are saturated with information about Bitcoin." (interviewee 12, female, US)

"Absolutely. This is not a concern that would prevent me from using Bitcoin." (interviewee 15, male, Sweden)

Q 19: I have received enough information about the benefits of using Bitcoin.
(Communication Channels)

On average all respondents respond negatively to this statement, scoring it on average at 2,0 ("somewhat disagree"). There are no substantial differences between gender or country groups, indicating that the benefits of Bitcoin have not been clearly communicated. This is in line with the hypothesis.

"Actually, I wouldn't say so. Even though everyone seems to be talking about it, there is no clear indication about how it can actually benefit people in their daily life." (interviewee 9, female, US)

"Definitely not; the discussion about Bitcoin seems to be centered around the various concerns and risks, rather real advantages for regular people." (interviewee 25, male, Sweden)

3.   Individual Factors

Q 20: I value advice from third party authorities regarding Bitcoin (economic and political governing bodies, media, opinion leaders).
(Dogmatism/Subjective Norms)

All of the groups score similarly high (average score = 4,1; "somewhat agree") for this factor, indicating its importance and influence in the decision-making process. Female respondents in both countries display slightly higher propensity for being influenced by this factor. This result directly contradicts the hypothesis, which assumed negative perception of this factor.

"I definitely would trust the authorities and reputable sources when it comes to something that could have such significant impact on the entire economic system. These are the sources I would turn to before deciding whether to use Bitcoin or not." (interviewee 9, female, US)

"I agree to some extent, especially since sometimes it's hard to judge which information being circulated about Bitcoin is true." (interviewee 2, male, US)

Q 21: I believe that using Bitcoin would be fun.
(Motivation)

Responses to this question differ between the two examined countries. Respondents in the US of both genders on average score this factor higher (average score = 3,6; i.e. "somewhat agree"), similar to female respondents in Sweden (average score = 3,6). However, male respondents in Sweden do not perceive this aspect positively (average score = 1,5), which contradicts the hypothesis.

"I agree; especially as I don't experience too many issues with my current payments, this could be something that might persuade me to switch to Bitcoin." (interviewee 6, male, US)

"The currency's purpose is to facilitate payments, I don't care if using it is fun." (interviewee 15, male, Sweden)

Q 22: I enjoy challenging the *status quo.*
(Self-confidence and Proactiveness)

All groups respond positively to this statement, indicating a presence of personality traits linked to propensity for innovation. The average score is 4,0 ("somewhat agree"), with respondents in the United States exhibiting slightly higher (average score = 4,1) level of this self-confidence and proactiveness than their Swedish counterparts (average score = 3,9).

"I'm usually quite comfortable speaking up about making changes, even if it means questioning the widely accepted norms." (interviewee 13, female, US)

"I actually really enjoy doing that; usually when I find myself in new surroundings I like to look for opportunities to impro ve things and have no problem communicating my opinions." (interviewee 32, female, Sweden)

Q 23: I feel confident when handling new situations.
(Self-confidence)

Comparably with the question above, all groups respond positively to this statement, indicating a presence of a personality characteristic linked to propensity for innovation.

Q 24: I enjoy testing the latest technological
inventions (Personal Innovativeness)

On average this question received positive response (average score = 3,8; "somewhat agree"), however the answers vary based on gender and location. We observe stronger indication of personal innovativeness (i.e. a trait linked to proclivity for adopting innovation) among US males (average score =

3,9; "somewhat agree"), as well as both males and females in Sweden (average scores of 4,2 and 4 respectively). Female interviewees in the United States on average responded neutrally (average score = 3,2; "neither agree nor disagree").

"Agreed; I usually try to keep up with the news about new innovations and like to experiment with them." (interviewee 29, female, Sweden)

"Sometimes, only if it is an innovation in my personal area of interest, and then that would depend on how much time I have available to test it out." (interviewee 14, female, US)

Q 25: Out of my peers, I am usually the first one to try out new innovations.
(Personal Innovativeness)

We observe differences in replies based on location, as well as based on gender. Male respondents in Sweden answer neutrally to this question (average score = 3,0; "neither agree nor disagree"), displaying no clear indication of particularly high level of this measure of personal innovativeness. We see a clear difference among male interviewees in the United States, who are the only group responding positively on average (average score = 4,0; "somewhat agree"). Female respondents in both countries respond negatively to this statement (average score = 2,4; "somewhat disagree").

"I enjoy testing out new things, but I wouldn't say I'm always the first one, it's pretty equal. Mostly when the invention is something directly related to my interests." (interviewee 20, Sweden, US)

"While I enjoy trying new innovations, it's not important to me to be the first one to use them and tend to give them a try after my friends have tested them." (interviewee 36, female, Sweden)

Q 26: I enjoy learning about my personal areas of interest.
(Personal Innovativeness)

We observe clear positive response to this statement, indicating presence of the trait. Respondents across all groups score 4,7 on average ("strongly agree").

Q 27: My previous experiences with innovations have been positive.
(Personal Innovativeness)

All of the respondents' previous experiences with innovation are deemed fairly positive (average score = 4,1; "somewhat agree"), indicating presence of the predictor of the propensity for innovation. Males in Sweden rate their previous experience particularly high, with average score of 4,5 ("strongly agree").

Overall, the questions related to personality traits yield very positive responses, in line with the hypothesis. We note one exception, linked to the interviewees' tendency to be an early adopters among their peers, which received a neutral reception.

Q 28: I am interested in learning more about Bitcoin.
(Intention to adopt)

Respondents in all groups apart from males in the United States reply negatively to this question, with average score of 2,2 ("somewhat disagree"), indicating low interest and potential intention to adopt. Males in the United States on average agree with the statement (average score = 3,8; "somewhat agree").

"I wouldn't say that I would consider exploring this subject further, unless I heard about any significant development that would entice me to use it." (interviewee 16, male, Sweden)

"I would like to do some research on my own and will do so if I have the time." (interviewee 6, male, US)

Q 29: I am considering using Bitcoin in the future.
(Intention to adopt)

Respondents across all groups reply negatively to this question, resulting in an average score of 1,6 ("somewhat disagree") and indicating low or no intention to adopt Bitcoin.

"The way the system is working right now I'm not sure that there are enough clear benefits that would make me consider it." (interviewee 10, female, US)

"I have no reason to believe that it would bring any improvement to my life, so at this point I. am not even considering it." (interviewee 18, male, Sweden)

Q 30: I intend to use Bitcoin in the future.
(Intention to adopt)

Responses to this question are somewhat more negative than to the question above, which inquired about the intention to adopt in a less direct and conclusive manner. On average, this question received a score of 1,2 ("strongly disagree").

Q 31: Bitcoin's values of anonymity and decentralization would encourage me to use
it.
(Extrinsic Motivation)

Respondents in the United States disagree with the statement (average score = 2,0; "somewhat disagree"), while the respondents in Sweden are neutral (average score = 2,8; neither agree nor disagree"), indicating that the alignment with personal values on the whole is not perceived as a factor or benefit when considering adopting Bitcoin. Interestingly, this contradicts our initial hypothesis of this aspect being viewed positively.

"These are quite interesting, but I don't think they are such a key benefit when it comes to currency." (interviewee 23, male, Sweden)

"I definitely disagree, I'm more interested in being able to use it without any extra hassle and in a way that is superior to my current payment experience." (interviewee 14, female, US)

Q 32: If using Bitcoin would improve my image, I would be more inclined to do it.
(Self-image)

For the majority of respondents, influence on their image/status is not a consideration in the decision-making process. Respondents in the United States score on average at 2,4 ("neither agree nor disagree"), while male respondents in Sweden "somewhat disagree" with the statement (average score = 1,9). Female respondents in Sweden are the only group that confirms our initial hypothesis of this factor being perceived positively, scoring it at 3,6 ("somewhat agree").

"Not really, it might be a bonus, but definitely not something that would make me more likely to use it." (interviewee 10, female, US)

"I guess that would be cool; probably not a significant enough factor to persuade me but it could be an additional benefit." (interviewee 37, female, Sweden)

Q 33: I believe that I would have full control over the Bitcoins I buy.
(Perceived Behavioral Control)

Overall respondents in all groups disagree with the statement (average score = 2,4; "somewhat disagree"), which confirms the hypothesis indicating that it is a consideration and a concern when contemplating Bitcoin adoption.

"I have doubts about it and that is definitely worrying when it comes to something that should be entirely in your control."

(interviewee 22, male, Sweden)

Q 34: I trust the existing financial system with my money.
(Extrinsic Motivation)

Respondents in all groups reply positively to this question (average score = 3,9; "somewhat agree"), with female interviewees in both countries displaying slightly higher reported level of trust. Consequently, we observe absence of this potential motivation to adopt Bitcoin, which disproves the hypothesis of negative perception of this factor.

"I know that it's not perfect, but overall I have a fair amount of trust in it, especially since the rules have tightened aft er the credit crunch." (interviewee 2, male, US)

"I definitely agree; specially in Sweden, I have had no reason to distrust the financial institutions." (interviewee 30, fema le, Sweden)

Each interview was concluded with an open question intended to discover any factors potentially not captured in the interview design:

Are there other factors or considerations that would be important for you when deciding to use Bitcoin as a currency?

We received 5 additional answers which could not be directly classified along with the aspects tested in the interview. 3 of these relate to Bitcoin's negative impact on the climate, with interviewee 8 (male, US), interviewee 28 (female, Sweden) and interviewee 32 (female, Sweden) expressing concerns about the high energy consumption linked to the mining of Bitcoin. These respondents quote this consideration as an important factor in their potential future decision-making process. The remaining 2 answers are connected to the worldwide degree of acceptance. Interviewee 26 (male, Sweden) and interviewee 30 (female, Sweden), as frequent travelers, would be concerned about the feasibility of using BTC in the countries they visit.

V. Discussion & Critical Reflections

Having analyzed a substantial amount of market trends and attitudes, the results will now be critically reflected upon and related to the research question. Multiple ways the results in this paper can be incorporated in other research are also discussed. The paper's findings are discussed from the view of BTC managerial contribution and implications for academics.

1.   Contributions to Understanding the Factors of Innofusions

First, our findings support the academic view led by Molina (1995) that technological innovation is social in nature. Across all our respondent groups, individual and social factors weighted at least as equally as the technological factor.

Second, our findings demonstrate that in discourse on Bitcoin's innofusion, researches need not only consider social motivations and barriers in addition to technical; but must also incorporate in their theoritization the gender and culture factor. As literature Gefen and Straub (1997) and Shergill and Li (2005) suggest and as our findings show, men and women often rate on opposite scales of the same factor. Moreover, men and women place different weight on the importance of each factor. Finally, researchers must approach innofusion studies with appreciation of the cultural differences. Culture meditates the importance of and interplay of different factors. In designing an innofusion strategy hopeful of wide adoption, innofusion's owners must address all of the aforementioned disparities.

We end with identifying at least 3 ways in which these findings can support other streams of research: (1) in studies on importance of gender in innofusion, (2) in studies extrapolating diffusion factors from innovation's context to innofusion's context, (3) in studies attesting the importance of social and individual factors in technological innofusions.

2.   Contributions to Understanding the Factors of Bitcoin's Innofusion

First, individual factors point to a climate more welcoming of innovation in Sweden than in the United States, primarily on account of gender. While Sweden scores high on both self-confidence and personal innovativeness- pre-conditions to any innovation uptake, the United States exhibits similar scores only for men. Women noticeably rank lower in self-confidence and while they do show some signs of personal innovativeness (mainly exploring own areas of interest and having previous innovation experience positive) women rank low in pioneering or otherwise engaging in testing latest innovation. Even though the studied group of highly educated, cosmopolitan recipients implies them being exposed to global news, our findings should guide Bitcoin innofusions owners away from relying on generic information, but

rather customise their approach by gender per country. In a world where the women make the bulk consumer spending (in the United States, according to Forbes, women drive 70-80% of all purchases), understanding gender differences can significantly impact Bitcoin's progress toward the mainstream currency.

Arguably most important finding within the individual factor group, our study shows that contrary to Nakamoto's belief, potential users do not identify with Bitcoin's cause of economic decentralisation and financial democratisation. Almost all respondents in Sweden and the United States exhibit high trust in their governing political and economic bodies. Nakamoto ought to consider rooting the Motivation factor in Bitcoin's design, rather than a derivative of external events. Similarly, the Image factor is not important to either of the groups studies, except for Swedish women, who believe owning Bitcoin would improve their image. Finally, Perceived Behavioural Control ranks low with all groups except for men in the United States. These factors contrast all of Nakamoto's beliefs, emphasising the need to reinvent approach to individuals, causes, status and design of the cryptocurrency if it is to become a tool in a routine economic activity.

Second, social factors clearly point that, despite potential user's opinion that they have received enough information about Bitcoin and influence of both types of communication (WoM and Media announcements) in transmitting that information, all potential users, other than American men, do not believe they have enough information about the benefits of Bitcoin. Firstly, these findings point to a truly unified information market within the developed countries. Secondly, to Bitcoin's owners, this is a recognition that global media and word of mouth channels are not transmitting beneficial information about Bitcoin, but rather focus on its misuse, as had been hypothesised in the theoretical framework. To alleviate this impediment, Bitcoin owners need to consider allying themselves with media towards better portrayal of genuine traits and opportunities, or take more proactive stands themselves. The owner of a related Blockchain use that aspires to extend its decentralisation principles to contractual engagements other than currency exchanges- Ether, Vitalik Buterin has pursued a global media campaign where Mr. Buterin himself explains the use, functioning and benefits of Ether. (A, 2018) Mr. Buterin sacrificed his anonymity for the benefit of concepts adoption. Ether has experienced arguably higher popularity than Bitcoin in a shorter time, and is currently perceived by some as a more promising and long term solution than Bitcoin, even though their technical backgrounds are equitable.

Third, technological assessment of Bitcoin, via perceived usefulness, perceived ease of use, and perceived enjoyment, demonstrates that all groups are yet to yield a definite conclusion of Bitcoin's usefulness. The greatest discrepancy in answers in noted in groups in Sweden, that more often than not take a negative stance to perceived Bitcoin traits, and are often distant from technological truth. US males show least oscillations across their answers, having positive views of all traits but Bitcoin's power in exchanges for

Fiat currency and Bitcoin's unreasonably high price. Interestingly, all groups were unfamiliar with the concept of Satoshis, which not only points to their ignorance of the concept of Bitcoin, but not knowing they can purchase a small piece obstructs their potential engagement in small-scale trials. Overall, Bitcoin owners ought to leverage US men's relative openness to the cryptocurrency into having a strong foothold into a routine US market, and a large group to provide opinions and observability of results.

Finally, testing consumer finance factors strengthens earlier finding that women- both American and Swedish are more risk-averse than their male counterparts, ranking answers on almost-always polar scales. As can be anticipated, women in both countries feel less secure to buy, own and use Bitcoin. To help ease the risk-averseness, further accentuates Bitcoin's innofusion's need to infuse the communication channels with rightful information. Moreover, our study provides a break down of what risks are most important, helping Bitcoin articulate and sequence their approach. By showing issues of security are prevalent with BTC, this implication expands to Blockchain as well, understanding what aspects of using the technology people are most concerned about - especially what security and risk worries they have.

Combined, these findings point to few stunning conclusions and recommendations to Bitcoin's infusion strategy. Firstly, this provides a backdrop as to what the main motivations and obstacles are, technical and social, to using bitcoin as a currency, and can be leveraged to advance mentioned gaps and empower people who own bitcoin- and have probably purchased it for quick financial gain (since the price is too expensive for mainstream use), to exercise bitcoin as currency and form a pool of users ready to provide feedback. Second, Bitcoin has so far faced competition of alternative governing structures- primarily from financial institutions, but Bitcoin's popularity encouraged a burst of not only alternative coins, but company ICO's, exponentially increasing supply of different coins. Bitcoin is in the near future expected to face competition from other coins, and will need to develop points of differentiation in respect to them. This places further urgency of the need to infuse communication channels with a pro-bitcoin stance.

Finally, our findings point to two more management recommendation- within individual factors and within consumer finance factors. Considering emphasizing BTC's near-utopian cause does not spark Motivation within potential end-users, BTC should consider using Motivation factors of Perceived Enjoyment and Intrinsic Motivation instead, emphasizing the fun in exercising BTC and fit to intrinsic needs. Moreover, as Tufano (2009) suggests, BTC should provide consumers with knowledge and options about moving BTC funds from today to tomorrow (lending/ investing) and from tomorrow to today (borrowing) in appealing more to end-users from a financial side.

We end with identifying at least 5 ways in which these findings contribute to existing understanding and can support other streams of research: (1) in studies of how to diffuse Bitcoin into mainstream channels,

per both women and men; (2) in studies on what factors act as motivations and deterrents to potential users; (3) how Bitcoin owners can understand and leverage most important factors in their innofusion strategy; (4) how Bitcoin owners can understand, hedge or correct negative factors (5) in studies on how to diffuse Bitcoin within companies, understanding end-users motivations and fears will help design company strategies to expedite diffusion and acceptance, (5) in understanding Bitcoin's relative stance to other cryptocurrencies, our research shows to Bitcoin's strongholds and weaknesses in consumers' minds, and finally, (6) user's technical perception of and requirements on Bitcoin can be leveraged in research on other Blockchain uses.

VI. Conclusion

In conclusion, our study provides a broad exploration of the perception and attitudes towards the factors linked to the adoption of innovation, thus informing the direction for Bitcoin's innofusion strategy. Additionally, it delivers a synthesis of existing literature on the implementation of innofusion and current body of research regarding Bitcoin's espousal.

The novelty of this research lies in its multilayered approach in terms of examining the various spheres of factors, combining those linked to the particularities of Bitcoin's technological design with social factors as well as factors pertaining individual characteristics. Furthermore, while the majority of existing studies related to Bitcoin focuses on its current user base, we explore the group of potential next adopters in order to determine how to facilitate Bitcoin's break into mainstream. We also take precautions to hedge the results against the impact of bias stemming from gathering data provided by respondents who are guided by different motivations for adopting Bitcoin, including those which are not in line with the motivations of the group intended as future users of Bitcoin as a currency. This aspect has not been a given any significant consideration in previous studies.

It yields interesting results which can guide future efforts aimed at turning Bitcoin into a conventional currency. We discover that although our respondents exhibit personality traits linked to propensity for adopting innovation, in line with the assumption guided by the choice of sample, they do not display intentions to adopt Bitcoin. This is evident from the responses to questions directly inquiring about the intent to adopt and presents the need to explore further the aspects which are proven to be perceived as concerns. Interestingly, we learn that some of the key features often posed as benefits of adopting Bitcoin, such as anonymity or independence from the financial and governing institutions, have little appeal to the potential users. We find the areas of concern, as well as identify the aspects which have been neglected thus far and have the potential to be leveraged as advantages of using Bitcoin.

This research is potentially prone to the limitations resulting from the choice of method, which have been discussed in detail in the Methodology section of this thesis. These relate to the choice of sample, which, while justified in light of the scope of this study, yields results which can be used as a foundation for further exploration, but cannot be extrapolated to the wider world. However, it should be noted that as

the selected sample is likely to include future adopters of Bitcoin, the concerns of this group are likely to be even more pronounced among general public.

Additionally, while all efforts to minimize the impact of interviewer bias have been undertaken, this risk cannot be eradicated entirely given the choice of method, therefore it is advisable to perform additional examination using a method which eliminates this concern.

This study opens up multiple avenues for further research. We suggest reproducing this test on a larger sample in order to explore whether the results will be replicated, particularly when it comes to the general public. Moreover, there is great potential for taking these results to the next level by investigating correlations between the factors, which is outside the scope of this study, examining the factors' significance related to the intention to adopt Bitcoin, as well as conducting an experiment exploring the possible impact of sequencing the factors, therefore answering the question of which factors have most importance to the potential adopters. Besides quantifying the factors' impact on the intention to implement Bitcoin there exists potential for exploring reasons behind the perceptions, particularly the ones which can be regarded as somewhat surprising, such as those related to the supposed benefits of Bitcoin. Furthermore, comparing attitudes regarding the factors in countries of different level of economic development presents a noteworthy opportunity for additional research.

VII.   Reference List

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1.   Appendix 1: Pre-study: survey and follow-up interviews results

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE	#1	#2	#3	Average Male	#4	#5	Average Female
	Age	Sociodemographic Factors	N/A	25,6	25	24	25	24,7	27	26	26,5
	Highest level of education (BSc/MSc)				MSc	BSc	BSc		MSc	MSc	
	Gender				Male	Male	Male		Female	Female	
	Location				Sweden	Sweden	Sweden		Sweden	Sweden	
TECHNOLOGICAL DESIGN	I believe that using Bitcoin makes my transactions faster.	Performance Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,6	4	1	3	2,7	2	3	2,5
	I believe that using Bitcoin makes my life easier.	Performance Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,5	3	1	3	2,5	2	3	2,5
	I believe that using Bitcoin makes transactions cheaper.	Performance Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,0	2	1	2	2,0	2	2	2,0
	I find Bitcoin useful in my everyday life.	Performance Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	1,0	2	2	1	1,0	1	1	1,0
	I believe that learning how to use Bitcoin was/would be easy for me.	Effort Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,5	4	3	3	3,5	4	3	3,5
	I believe that using Bitcoin was/would be easy for me.	Effort Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,5	3	3	3	2,5	3	2	2,5
	How much of a time commitment do you think getting started with Bitcoin involved?	Effort Expectancy	5 - None at all 4 - A little 3 - A moderate amount 2 - A lot 1 - A great deal	2,5	4	4	2	2,5	2	3	2,5
	How much of a money commitment do you think getting started with Bitcoin involved?	Effort Expectancy	5 - None at all 4 - A little 3 - A moderate amount 2 - A lot 1 - A great deal	2,5	2	3	2	2,5	3	2	2,5
	I believe that Bitcoin is reasonably priced.	Effort Expectancy	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	1,5	1	1	2	1,5	2	1	1,5
	I am familiar with the concept of Satoshis.	Effort Expectancy	5 - Excellent understanding 4 - Good understanding 4 - To some extent 2 - Vaguely familiar (aware) 1 - Not familiar at all	1,5	4	1	1	1,5	1	2	1,5
	I believe that using Bitcoin is fun.	Motivation	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,0	3	3	2	2,0	2	2	2,0

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE	#1	#2	#3	Average Male	#4	#5	Average Female
	Age	Sociodemographic Factors	n/a	25,6	25	24	25	24,7	27	26	26,5
	Highest level of education (BSc/MSc)				MSc	BSc	BSc		MSc	MSc	
	Gender				Male	Male	Male		Female	Female	
	Location				Sweden	Sweden	Sweden		Sweden	Sweden	
CONSUMER FINANCE TECHNOLOGICAL DESIGN	Are you afraid of being a victim to false Bitcoin sellers?	Security Risk (Counterparty Risk)	5 - Definitely yes 4 - Probably yes 3 - Might or might not 2 - Probably not 1 - Definitely not	3,2	3	4	3	3,3	4	2	3,0
	I feel secure to own and use Bitcoin.	Security Risk	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,6	3	3	2	2,7	3	2	2,5
	Security is my primary concern when considering using Bitcoin.	Security Risk	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,8	3	1	4	2,7	2	4	3,0
	Do you trust different Coin Wallet platforms?	Operational Risk	5 - Definitely yes 4 - Probably yes 3 - Might or might not 2 - Probably not 1 - Definitely not	2,3	3	3	2	2,7	3	1	2,0
	I believe that Bitcoin will maintain its value over time.	Market Risk	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree"	1,7	1	2	1	1,3	1	3	2,0
	Do you think that using Bitcoin might cause legal problems for you?	Legal & Regulatory Risk	5 - Definitely yes 4 - Probably yes 3 - Might or might not 2 - Probably not 1 - Definitely not	2,2	2	3	2	2,3	3	1	2,0
SOCIAL	Access to the Bitcoin community played a part in my decision to purchase it.	Community Aspect (belonging to the community)	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree"	3,0	3	4	2	3,0	4	2	3,0
	If most of my peers would use Bitcoin, I would be more inclined to use it as well.	Social Influence/Subjective Norms	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,0	2	4	3	3,0	2	4	3,0
	There is enough information about Bitcoin for me to look up.	Communication Channels	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,9	5	4	4	4,3	4	3	3,5
	I have received enough information about the benefits of using Bitcoin.	Communication Channels	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,5	4	2	3	3,0	2	2	2,0

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE	#1	#2	#3	Average Male	#4	#5	Average Female
	Age	Sociodemographic Factors	n/a	25,6	25	24	25	24,7	27	26	26,5
	Highest level of education (BSc/MSc)				MSc	BSc	BSc		MSc	MSc	
	Gender				Male	Male	Male		Female	Female	
	Location				Sweden	Sweden	Sweden		Sweden	Sweden	
INDIVIDUAL	I value advice from third party authorities regarding Bitcoin (economic and political governing bodies, media, opinion leaders).	Dogmatism/ Subjective Norms	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,4	1	4	2	2,3	4	1	2,5
	I enjoy challenging the *status quo*.	Self-confidence & proactiveness	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,8	5	2	4	3,7	3	1	2,0
	I feel confident when handling new situations.	Self-confidence	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,2	4	2	4	3,3	2	4	3,0
	I enjoy testing the latest technological inventions	Personal Innovativeness	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,4	4	3	3	3,3	3	4	3,5
	Out of my peers, I am usually the first one to try out new innovations.	Personal Innovativeness	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,6	4	2	2	2,7	1	4	2,5
	I enjoy learning about my personal areas of interest.	Personal Innovativeness	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,8	4	3	4	3,7	3	5	4,0
	My previous experiences with innovations have been positive.	Personal Innovativeness	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,4	4	3	3	3,3	4	3	3,5
	I am interested in learning more about Bitcoin.	Intention to adopt	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,4	4	1	2	2,3	1	4	2,5
	Bitcoin's values of anonymity and decentralization encouraged me to use it.	Extrinsic motivation (alignment with personal values)	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,8	4	3	1	2,7	2	4	3,0
	If using Bitcoin would improve my image, I would be more inclined to do it.	Self-image, prestige/status	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	2,8	3	5	1	3,0	2	3	2,5
	I believe that I have full control over the Bitcoins I buy.	Perceived Behavioral Control	5 - Definitely yes 4 - Probably yes 3 - Might or might not 2 - Probably not 1 - Definitely not	2,5	4	3	2	3,0	2	2	2,0
	I trust the existing financial system with my money.	Extrinsic motivation (alignment with personal values)	5 - Strongly agree 4 - Somewhat agree 3 - Neither agree nor disagree 2 - Somewhat disagree 1 - Strongly disagree	3,3	2	4	3	3,0	3	4	3,5
Follow-up interview questions	What was your motivation for adopting Bitcoin?				Financial gain	Financial gain	Financial gain		Financial gain	Curiosity/ Social influence	
	What year did you adopt Bitcoin?				2015	2015	2016		2016	2014	

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#1	#2	#3	#4	#5	#6	#7	#8	Average US Male	#9	#10	#11	#12	#13	#14	Average US Female	Average US
	Age	Sociodemographic Factor	N/A	25,1	25	26	23	27	24	26	26	24	25,1	24	24	27	25	25	26	25,2	25,1
	Highest level of education				MSc	MSc	BSc	MSc	BSc	MSc	MSc	BSc		BSc	BSc	MSc	BSc	MSc	MSc		
	Gender (M/F)				M	M	M	M	M	M	M	M		F	F	F	F	F	F		
	Location (SWE/US)				US	US	US	US	US	US	US	US		US	US	US	US	US	US		
	Interview format				Skype	Skype	Skype	Skype	Skype	Skype	Skype	Skype		Skype	Skype	Skype	Skype	Skype	Skype		
	Interview length (min)				51	55	52	46	67	48	72	50		48	58	55	64	69	77		
TECHNOLOGICAL DESIGN	I believe that using Bitcoin will make my transactions faster.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,9	2	3	3	3	4	3	4	3	3,1	4	3	2	3	3	3	3,0	3,1
	I believe that using Bitcoin will make my life easier.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,8	3	2	1	2	2	2	1	2	1,9	2	1	2	2	2	1	1,7	1,8
	I believe that using Bitcoin will make my transactions cheaper.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,9	3	3	2	2	2	2	1	1	2,0	2	2	2	1	2	1	1,7	1,8
	I would find Bitcoin useful in my everyday life.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,2	2	1	1	1	1	1	1	1	1,1	1	1	1	1	2	1	1,2	1,1
	I believe that learning how to use Bitcoin will be easy for me.	Effort Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,5	4	4	5	2	4	4	4	4	3,9	2	2	4	1	2	2	2,2	3,0
	How much of a time commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	5 - None at all / 4 - A little / 3 - A moderate amount / 2 - A lot / 1 - A great deal	3,3	3	3	3	4	3	3	3	3	3,1	3	3	3	4	3	3	3,2	3,1
	How much of a money commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	5 - None at all / 4 - A little / 3 - A moderate amount / 2 - A lot / 1 - A great deal	3,2	4	3	3	4	4	4	5	4	3,9	4	3	4	4	5	4	4,0	3,9
	I believe that Bitcoin is reasonably priced.	Effort Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,5	1	1	2	2	2	1	2	2	1,6	3	2	2	1	1	2	1,8	1,7
	I am familiar with the concept of Satoshis.	Effort Expectancy	5 - Excellent understanding (expert) / 4 - Good understanding / 4 - To some extent / 2 - Vaguely familiar (merely aware) / 1 - Not familiar at all	1,1	2	1	1	1	1	1	1	1	1,1	1	1	1	1	1	1	1,0	1,1
	I beileve that using Bitcoin would be fun.	Motivation	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,1	4	4	4	3	3	4	3	4	3,6	3	4	3	4	4	4	3,7	3,6

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#1	#2	#3	#4	#5	#6	#7	#8	Average US Male	#9	#10	#11	#12	#13	#14	Average US Female	Average US
	Age			25,1	25	26	23	27	24	26	26	24	25,1	24	24	27	25	25	26	25,2	25,1
	Highest level of education	Sociodemographic Factor	N/A		MSc	MSc	BSc	MSc	BSc	MSc	MSc	BSc		BSc	BSc	MSc	BSc	MSc	MSc		
	Gender (M/F)				M	M	M	M	M	M	M	M		F	F	F	F	F	F		
	Location (SWE/US)				US	US	US	US	US	US	US	US		US	US	US	US	US	US		
	Interview format				Skype	Skype	Skype	Skype	Skype	Skype	Skype	Skype		Skype	Skype	Skype	Skype	Skype	Skype		
	Interview length (min)				51	55	52	46	67	48	72	50		48	58	55	64	69	77		
FIN TECH INNOVATION	Are you concerned about falling victim to false Bitcoin sellers?	Security Risk (Counterparty Risk)	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	3,4	3	3	3	3	2	3	3	3	2,9	4	4	5	4	3	4	4,0	3,4
	I would feel secure to own and use Bitcoin.	Security Risk	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,0	2	1	3	2	2	2	2	2	2,0	3	1	1	2	1	1	1,5	1,8
	Security is my primary concern when considering using Bitcoin.	Security Risk	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,4	2	2	3	2	3	3	3	3	2,6	4	4	5	3	4	4	4,0	3,3
	Do you trust different Coin Wallet platforms?	Operational Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	2,4	3	2	3	2	3	3	3	3	2,8	1	2	2	1	3	2	1,8	2,3
	I believe that Bitcoin will maintain its value over time.	Market Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	1,7	2	1	2	2	1	2	2	2	1,8	2	2	2	2	1	2	1,8	1,8
	Do you think that using Bitcoin might cause legal problems for you?	Legal & Regulatory Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	2,6	3	2	2	2	2	2	3	2	2,3	2	3	3	2	4	3	2,8	2,5
SOCIAL	Becoming a member of the Bitcoin community would be a bonus to owning Bitcoins.	Community Aspect (belonging to the community)	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,3	1	1	1	1	4	1	1	1	1,4	2	1	2	1	1	1	1,3	1,4
	If most of my peers would use Bitcoin, I would be more inclined to use it as well.	Social Influence/Subjective Norms	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,9	4	4	3	4	5	4	4	4	4,0	4	5	3	4	3	3	3,7	3,8
	There is enough information about Bitcoin for me to look up.	Communication Channels	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,9	4	4	4	3	3	4	5	4	3,9	3	4	4	4	4	4	3,8	3,9
	I have received enough information about the benefits of using Bitcoin.	Communication Channels	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,0	3	2	2	2	2	3	2	2	2,3	2	1	1	2	2	1	1,5	1,9

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FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#1	#2	#3	#4	#5	#6	#7	#8	Average US Male	#9	#10	#11	#12	#13	#14	Average US Female	Average US
	Age	Sociodemographic Factor	N/A	25,1	25	26	23	27	24	26	26	24	25,1	24	24	27	25	25	26	25,2	25,1
	Highest level of education				MSc	MSc	BSc	MSc	BSc	MSc	MSc	BSc		BSc	BSc	MSc	BSc	MSc	MSc		
	Gender (M/F)				M	M	M	M	M	M	M	M		F	F	F	F	F	F		
	Location (SWE/US)				US	US	US	US	US	US	US	US		US	US	US	US	US	US		
	Interview format				Skype	Skype	Skype	Skype	Skype	Skype	Skype	Skype		Skype	Skype	Skype	Skype	Skype	Skype		
	Interview length (min)				51	55	52	46	67	48	72	50		48	58	55	64	69	77		
INDIVIDUAL	I value advice from third party authorities regarding Bitcoin (economic and political governing bodies, media, opinion leaders).	Dogmatism/Subjective Norms	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	4,1	4	4	4	5	5	2	4	4	4,0	5	5	4	4	4	4	4,3	4,2
	I love to challenge the *status quo*.	Self-confidence & proactiveness	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	4,0	3	4	5	4	4	4	5	4	4,1	5	4	3	4	4	4	4,0	4,1
	I feel confident when handling new situations.	Self-confidence	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	4,0	4	4	5	4	4	4	5	4	4,3	5	3	4	4	3	4	3,8	4,0
	I enjoy testing the latest technological inventions	Personal Innovativeness	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	3,8	5	4	4	3	4	4	3	4	3,9	4	2	3	3	4	3	3,2	3,5
	Out of my peers, I am usually the first one to try out new innovations.	Personal Innovativeness	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	3,0	5	4	4	4	2	4	4	5	4,0	3	3	2	2	4	1	2,5	3,3
	I enjoy learning about my personal areas of interest.	Personal Innovativeness	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	4,7	5	4	5	4	4	5	5	5	4,6	5	5	4	5	5	5	4,8	4,7
	My previous experiences with innovations have been positive.	Personal Innovativeness	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	4,1	5	4	4	3	3	4	4	4	3,9	4	4	4	4	5	4	4,2	4,0
	I am interested in learning more about Bitcoin.	Intention to adopt	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	2,6	5	4	4	4	3	4	4	2	3,8	4	2	2	1	3	1	2,2	3,0
	I am considering using Bitcoin in the future.	Intention to adopt	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	1,6	4	1	1	2	2	2	2	1	1,9	2	2	1	1	1	1	1,3	1,6
	I intend to use Bitcoin in the future.	Intention to adopt	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	1,4	3	1	1	1	2	2	2	1	1,6	3	2	1	1	1	1	1,5	1,6
	Bitcoin's values of anonymity and decentralization would encourage me to use it.	Extrinsic motivation (alignment with personal values)	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	2,4	2	2	3	2	2	3	1	2	2,1	3	3	1	1	2	1	1,8	2,0
	If using Bitcoin would improve my image, I would be more inclined to do it.	Self-image, prestige/status	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	2,6	4	2	2	2	4	1	2	2	2,4	1	2	2	4	3	3	2,5	2,4
	I believe that I would have full control over the Bitcoins I buy.	Perceived Behavioral Control	5 - Definitely yes; 4 - Probably yes; 3 - Might or might not; 2 - Probably not; 1 - Definitely not	2,4	3	3	2	4	2	2	2	4	2,8	3	1	2	2	3	2	2,2	2,5
	I trust the existing financial system with my money.	Extrinsic motivation (alignment with personal values)	5 - Strongly agree; 4 - Somewhat agree; 3 - Neither agree nor disagree; 2 - Somewhat disagree; 1 - Strongly disagree	3,9	4	4	4	3	4	2	4	4	3,6	5	4	5	3	4	4	4,2	3,9

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	Average SWE Male	#28	#29	#30	#31	#32	#33	#34	#35	#36	#37	Average SWE Female	Average SWE
	Age	Sociodemographic Factor	N/A	25,1	25	26	25	27	25	26	25	27	23	25	25	26	24	25,3	27	26	23	23	24	26	24	25	25	25	24,8	25,1
	Highest level of education				MSc	MSc	BSc	MSc	MSc	MSc	MSc	BSc	MSc	MSc	MSc	BSc			MSc	MSc	BSc	BSc	MSc	MSc	MSc	MSc	MSc			
	Gender (M/F)				M	M	M	M	M	M	M	M	M	M	M	M	M		F	F	F	F	F	F	F	F	F	F		
	Location (SWE/US)				SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		
	Interview format				In person	Skype	In person	In person	In person	In person	In person	Skype	In person	In person	In person	In person	In person		In person	In person	In person	In person	In person	In person	In person	In person	Skype	In person		
	Interview length (min)				45	66	60	42	49	55	50	52	56	71	50	43	47		65	50	54	52	43	49	63	61	70	48		
TECHNOLOGICAL DESIGN	I believe that using Bitcoin will make my transactions faster.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,9	3	2	4	3	3	2	4	1	3	3	3	3	2	2,8	3	3	3	3	3	3	1	3	2	3	2,7	2,7
	I believe that using Bitcoin will make my life easier.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,8	1	2	1	2	2	2	2	1	1	2	2	2	2	1,7	2	2	2	2	2	2	2	3	3	1	2,1	1,9
	I believe that using Bitcoin will make my transactions cheaper.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,9	1	2	3	2	2	2	2	3	2	2	1	2	2	2,0	2	2	2	2	1	2	2	2	2	1	1,8	1,9
	I would find Bitcoin useful in my everyday life.	Performance Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,2	1	1	1	1	3	1	1	1	1	1	1	1	1	1,2	1	1	1	1	1	1	1	2	2	1	1,2	1,2
	I believe that learning how to use Bitcoin will be easy for me.	Effort Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,5	4	3	4	4	5	5	4	2	3	4	4	5	4	3,9	4	4	4	4	4	4	3	5	5	4	4,1	4,0
	How much of a time commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	5 - None at all / 4 - A little / 3 - A moderate amount / 2 - A lot / 1 - A great deal	3,3	3	2	3	3	3	3	3	3	4	3	3	2	3	2,9	4	3	3	4	4	4	4	4	4	4	3,8	3,4
	How much of a money commitment do you think getting started with Bitcoin would involve?	Effort Expectancy	5 - None at all / 4 - A little / 3 - A moderate amount / 2 - A lot / 1 - A great deal	3,2	4	2	2	3	3	2	2	2	2	2	3	2	2	2,4	3	2	2	3	3	3	2	2	2	2	2,4	2,4
	I believe that Bitcoin is reasonably priced.	Effort Expectancy	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,5	2	1	2	2	1	1	1	1	1	1	1	1	1	1,2	2	1	1	1	2	2	1	1	1	1	1,3	1,3
	I am familiar with the concept of Satoshis.	Effort Expectancy	5 - Excellent understanding (expert) / 4 - Good understanding / 3 - To some extent / 2 - Vaguely familiar (merely aware) / 1 - Not familiar at all	1,1	1	1	1	1	2	1	1	1	2	2	1	1	1	1,2	1	1	1	1	2	1	1	2	1	1	1,2	1,2
	I beileve that using Bitcoin would be fun.	Motivation	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,1	1	4	1	1	1	2	1	1	3	1	1	1	1	1,5	3	4	4	4	4	4	3	4	4	2	3,6	2,5

FACTOR GROUP	QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	Average SWE Male	#28	#29	#30	#31	#32	#33	#34	#35	#36	#37	Average SWE Female	Average SWE
	Age	Sociodemographic Factor	N/A	25,1	25	26	25	27	25	26	25	27	23	25	25	26	24	25,3	27	26	23	23	24	26	24	25	25	25	24,8	25,1
	Highest level of education				MSc	MSc	BSc	MSc	MSc	MSc	MSc	BSc	MSc	MSc	MSc	MSc	BSc		MSc	MSc	BSc	BSc	BSc	MSc	MSc	MSc	MSc	MSc		
	Gender (M/F)				M	M	M	M	M	M	M	M	M	M	M	M	M		F	F	F	F	F	F	F	F	F	F		
	Location (SWE/US)				SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		
	Interview format				In person	Skype	In person	In person	In person	In person	In person	Skype	In person	In person	In person	In person	In person		In person	In person	In person	In person	In person	In person	In person	In person	Skype	In person		
	Interview length (min)				45	66	60	42	49	55	50	52	56	71	50	43	47		65	50	54	52	43	49	63	61	70	48		
CONSUMER FINANCE TECHNOLOGICAL DESIGN	Are you concerned about falling victim to false Bitcoin sellers?	Security Risk (Counterparty Risk)	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	3,4	3	4	3	3	3	3	2	3	2	4	4	3	3	3,1	2	3	4	4	4	4	3	4	4	4	3,6	3,3
	I would feel secure to own and use Bitcoin.	Security Risk	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,0	1	2	3	2	2	2	2	3	2	3	3	2	2	2,2	2	2	2	4	3	2	2	2	2	2	2,3	2,3
	Security is my primary concern when considering using Bitcoin.	Security Risk	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,4	3	4	4	3	3	3	3	2	3	2	3	3	3	3,0	3	4	4	4	3	4	4	4	5	5	4,0	3,5
	Do you trust different Coin Wallet platforms?	Operational Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	2,4	3	3	3	3	3	3	3	2	3	2	3	3	3	2,8	2	2	3	2	2	2	2	2	3	2	2,2	2,5
	I believe that Bitcoin will maintain its value over time.	Market Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	1,7	1	1	1	1	3	2	1	1	1	1	2	1	1	1,3	2	1	1	2	2	2	2	3	2	1	1,8	1,6
	Do you think that using Bitcoin might cause legal problems for you?	Legal & Regulatory Risk	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	2,6	2	2	2	2	2	2	3	2	2	2	4	2	2	2,2	3	3	3	4	3	2	3	2	3	3	2,9	2,6
SOCIAL	Becoming a member of the Bitcoin community would be a bonus to owning Bitcoins.	Community Aspect (belonging to the community)	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,3	1	1	2	1	1	1	1	1	1	1	2	1	1	1,2	1	2	3	1	1	1	2	1	1	1	1,4	1,3
	If most of my peers would use Bitcoin, I would be more inclined to use it as well.	Social Influence/Subjective Norms	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,9	4	3	4	4	4	3	4	4	3	4	4	5	4	3,8	3	4	5	4	4	5	4	5	3	4	4,1	4,0
	There is enough information about Bitcoin for me to look up.	Communication Channels	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,9	5	4	4	3	4	3	4	4	4	4	4	4	5	4,0	3	3	4	4	4	4	5	4	4	4	3,9	4,0
	I have received enough information about the benefits of using Bitcoin.	Communication Channels	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,0	3	2	2	3	2	2	4	2	1	1	1	2	3	2,2	1	2	2	1	3	3	3	2	1	2	2,0	2,1

QUESTION	FACTOR	MEASUREMENT SCALE	AVERAGE US & SWE	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	Average SWE Male	#28	#29	#30	#31	#32	#33	#34	#35	#36	#37	Average SWE Female	Average SWE
Age	Sociodemographic Factor	N/A	25,1	25	26	25	27	25	26	25	27	23	25	25	26	24	25,3	27	26	23	23	24	26	24	25	25	25	24,8	25,1
Highest level of education				MSc	MSc	BSc	MSc	MSc	MSc	MSc	BSc	MSc	MSc	MSc	BSc			MSc	MSc	BSc	BSc	BSc	MSc	MSc	MSc	MSc	MSc		
Gender (M/F)				M	M	M	M	M	M	M	M	M	M	M	M	M		F	F	F	F	F	F	F	F	F	F		
Location (SWE/US)				SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWE		
Interview format				In person	Skype	In person	In person	In person	In person	In person	Skype	In person	In person	In person	In person	In person		In person	In person	In person	In person	In person	In person	In person	In person	Skype	In person		
Interview length (min)				45	66	60	42	49	55	50	52	56	71	50	43	47		65	50	54	52	43	49	63	61	70	48		
I value advice from third party authorities regarding Bitcoin (economic and political governing bodies, media, opinion leaders)	Dogmatism/Subjective Norms	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	4,1	4	4	5	4	4	4	2	4	4	4	4	4	5	4,0	4	5	4	4	4	3	5	5	4	4	4,2	4,1
I love to challenge the *status quo*.	Self-confidence & proactiveness	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	4,0	4	5	4	4	4	4	4	4	4	5	4	3	3	4,0	4	4	4	4	5	4	3	2	4	4	3,8	3,9
I feel confident when handling new situations.	Self-confidence	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	4,0	4	5	3	4	3	5	4	4	4	4	3	4	4	3,9	4	4	4	4	5	4	4	3	4	5	4,1	4,0
I enjoy testing the latest technological inventions	Personal Innovativeness	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,8	4	4	4	4	5	4	4	4	4	4	4	4	5	4,2	3	4	3	4	5	5	4	4	4	4	4,0	4,1
Out of my peers, I am usually the first one to try out new innovations.	Personal Innovativeness	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,0	2	4	4	2	5	3	3	4	3	4	2	3	3	3,2	2	2	2	2	4	4	2	2	2	2	2,4	2,8
I enjoy learning about my personal areas of interest.	Personal Innovativeness	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	4,7	4	5	4	4	5	5	4	5	5	5	5	5	5	4,7	4	5	5	4	5	4	5	5	5	5	4,7	4,7
My previous experiences with innovations have been positive.	Personal Innovativeness	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	4,1	4	4	4	5	5	4	4	5	4	4	5	5	5	4,5	4	4	4	4	3	4	4	4	3		3,8	4,1
I am interested in learning more about Bitcoin.	Intention to adopt	5 - Somewhat agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,6	2	2	3	1	3	2	2	3	2	3	3	2	1	2,2	2	2	2	3	4	3	2	1	1	2	2,2	2,2
I am considering using Bitcoin in the future.	Intention to adopt	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,6	2	2	1	1	2	1	1	2	1	1	2	1	1	1,4	2	1	2	2	3	2	2	1	1	1	1,7	1,5
I intend to use Bitcoin in the future.	Intention to adopt	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	1,4	2	1	1	1	2	1	1	1	1	1	1	1	1	1,2	2	1	2	2	2	1	2	1	1	1	1,5	1,3
Bitcoin's values of anonymity and decentralization would encourage me to use it.	Extrinsic motivation (alignment with personal values)	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,4	3	4	3	2	3	2	3	3	3	3	3	1	3	2,8	3	2	3	2	4	3	3	3	2	3	2,8	2,8
If using Bitcoin would improve my image, I would be more inclined to do it.	Self-image, prestige/status	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	2,6	2	1	2	1	2	1	3	2	3	3	2	1	2	1,9	4	2	4	3	4	4	4	4	3	4	3,6	2,8
I believe that I would have full control over the Bitcoins I buy.	Perceived Behavioral Control	5 - Definitely yes / 4 - Probably yes / 3 - Might or might not / 2 - Probably not / 1 - Definitely not	2,4	2	2	2	1	3	2	3	2	2	2	2	2	3	2,3	3	2	2	2	2	1	3	3	2	2	2,2	2,3
I trust the existing financial system with my money.	extrinsic motivation (alignment with personal values)	5 - Strongly agree / 4 - Somewhat agree / 3 - Neither agree nor disagree / 2 - Somewhat disagree / 1 - Strongly disagree	3,9	4	4	4	3	4	4	4	3	4	4	4	4	4	3,8	4	5	5	4	4	4	3	4	3	4	4,0	3,9